

## **APPENDICES**

# **APPENDIX A**

## **POLICIES**

Table A.1. Existing hazard mitigation in the St. Lucie County Comprehensive Growth Management Plan.

Policy/Objective/Goal	Source	Notes
By 1990, apply for Florida Department of Environmental Resources (FDER) grant assistance which they have available for the following programs: recycling and education, home owner used oil collection, waste tire processing, and home owner and small quantity generator hazardous waste storage.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6B.2.1.4, pp. 6-B-36.	Hazardous Materials Disaster Mitigation
Develop and implement a hazardous waste management plan for the County.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Goal 6B.3, pp. 6-B-37.	Hazardous Materials Disaster Mitigation
By the year 1995, the County will have designated a site and a hazardous waste storage/transfer facility will be constructed for use by public emergency management agencies, the household generator, and small quantity generators.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Objective 6B.3.1, pp. 6-B-37.	Hazardous Materials Disaster Mitigation
Determine the feasibility and cost effectiveness of funding the Hazardous Waste Verification Program by an Occupational License Hazardous Waste Verification Assessment Fee.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6B.3.1.4, pp. 6-B-37.	Hazardous Materials Disaster Mitigation
Determine the feasibility and cost effectiveness of a County-wide cooperative education program focusing on informing the public about household hazardous waste, proper disposal methods and less environmentally harmful substitutes for these products. This could be done in conjunction with Amnesty Day awareness notification.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6B.3.1.5, pp. 6-B-37.	Hazardous Materials Disaster Mitigation
Consider and explore alternate funding sources for the construction/operation of a hazardous waste storage/transfer facility including the use of a state-certified hazardous waste contractor.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6B.3.1.6, pp. 6-B-38.	Hazardous Materials Disaster Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
By the year 1991, the County will have developed and implemented the methodologies to exclude hazardous waste from the Glades Road landfill.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Objective 6B.3.2, pp. 6-B-38.	Hazardous Materials Disaster Mitigation
Use an inspection of screening system to exclude obviously suspect items from the landfill. Drums, tanks from unknown sources, waste pesticides, or chemicals and residues from spill clean-ups are a few of the normally suspect items.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6B.3.2.1, pp. 6-B-38.	Hazardous Materials Disaster Mitigation
Continue regularly scheduled "Amnesty Days" collection programs for household hazardous wastes that may include other public or private small quantity generators.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6B.3.2.2, pp. 6-B-38.	Hazardous Materials Disaster Mitigation
By January 31, 1991 the County shall have commenced the development, to be completed by January 31, 1992, of County-wide stormwater Master Plan, the purpose of which is to identify problems, propose solutions, and determine costs.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6B.3.2.2, pp. 6-B-38.	Flood Mitigation
By January 31, 1991, the County will have defined the flood prone areas within its jurisdiction.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Objective 6C.1.2, pp. 6-C-40.	Flood Mitigation
The County Engineer shall maintain an inventory of flooding complaints, and each January 1st provide a report to the Board of County Commissioners identifying any problem areas and include any recommended corrective actions.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6C.1.2.1, pp. 6-C-40.	Flood Mitigation
By August 1, 1990, the County shall enact Land Development Regulations which support the protection and maintenance of the natural functions of the 100-year floodplain and other natural drainage features.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Objective 6C.1.3, pp. 6-C-40.	Flood Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
The County shall incorporate into its Land Development Regulations specific criteria regulating construction standards within the 100-year floodplain.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6C.1.3.1, pp. 6-C-41.	Flood Mitigation
The County shall, as an appendix to the Land Development Regulations, prepare a public informational handout explaining the purpose for the regulations set forth in Policy 6C.1.3.3.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6C.1.3.2, pp. 6-C-41.	Flood Mitigation
The County, in conjunction with the South Florida Water Management District (SFWMD), shall begin to review and evaluate existing drainage studies and plan within the County's jurisdictions to determine their relevance to the current stormwater regulations.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Objective 6C.1.4, pp. 6-C-41.	Flood Mitigation
It is the goal of St. Lucie County to implement a County-wide drainage system for urban and non-urban areas.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Objective 6C.2, pp. 6-C-41.	Flood Mitigation
Seek funding from State/federal grants and/or assessments in the area served by drainage improvements.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Objective 6C.2.1.1, pp. 6-C-42.	Flood Mitigation
As a part of the Land Development Regulations, include regulations governing the protection of potable wellfields from possible sources of contamination.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6C.3.1.1, pp. 6-C-42.	Wellfield Contamination Mitigation
To encourage the development of a series of agricultural reservoir areas to reduce the impacts of agricultural fertilizers and other related chemical applicants on the existing potable wellfields in the eastern portions of the County.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6C.3.1.4, pp. 6-C-42.	Wellfield Contamination Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
To continue to cooperate with the SFWMD in the identification and closure of free flowing artesian wells.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6C.3.1.5, pp. 6-C-43.	Drought Mitigation
The County will protect the function of natural groundwater aquifer recharge of designated public potable water supply wells by adopting a permanent Wellfield Protection Ordinance by August 1, 1992.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6C.3.2.1, pp. 6-C-43.	Wellfield Contamination Mitigation
The County will continue to assist the St. Lucie County Public Health Unit, Environmental Health Section, with the Hazardous Waste Verification Program by continuing to require all Occupational License applicants receive Public Health Unit approval prior to issuance of an Occupational License.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6C.3.2.3, pp. 6-C-43.	Hazardous Materials Disaster Mitigation
Aggressively identify, protect, conserve, and best utilize the County's available water supply resources.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Goal 6D.2, Policy. 6-Drought Mitigation-21.	Drought Mitigation
The County will develop a wellfield protection plan for public potable water supply.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6D.2.1, pp. 6-21.	Wellfield Contamination Mitigation
The County shall evaluate the feasibility of a comprehensive water conservation program incorporating, at a minimum, the following policies.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Objective 6D.2.2, pp. 6-22.	Drought Mitigation
The County shall continue to require water saving devices in new construction, adding additional requirements to the building code as technological advances occur.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6D.2.2.1, pp. 6-22.	Drought Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
The County shall evaluate the landscaping portion of the existing zoning ordinance to determine the feasibility of requiring more exacting provisions for native landscaping plants and xeriscaping.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6D.2.2.2, pp. 6-22.	Drought Mitigation
The Land Development Regulations shall require wastewater reuse plans for new sewage treatment plans operating above 250,000 gallons per day. Any new reuse plan shall be approved by the FDER.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6D.2.2.3, pp. 6-22.	Drought Mitigation
Encourage reuse and reclamation of water for irrigation, agriculture, and industry as an alternative to use of potable water supplies.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6D.2.2.4, pp. 6-23.	Drought Mitigation
Provide for education of the public concerning the need for water conservation.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Infrastructure Element, Policy 6D.2.2.5, pp. 6-23.	Drought Mitigation
Air quality with St. Lucie County shall meet or surpass National Ambient Air Quality Standards (NAAQS) for all pollutants measured by Florida Department of Environmental Protection.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Objective 8.1.1, pp. 8-37.	Air Pollution Mitigation
The County shall request from the SFWMD with appropriate administrative and/or fiscal support, a project which evaluates the economic and environmental feasibility of a reservoir in the western parts of the County for the purposes of water conservation, as well as stormwater management and improved surface water quality.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.2.4, pp. 8-38.	Drought Mitigation
The County shall continue to enforce land development regulations, which require the protection and maintenance of the natural function of the 100-year floodplain.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Objective 8.1.3, pp. 8-40.	Flood Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
The County's land development regulation shall include the use of programs to protect or maintain floodplains, such as reduced parking, conservation easements, cluster site planning and micro siting of buildings. The County shall continue to strictly enforce regulations that direct development away from floodplains and provide upland buffers along the floodplain.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.3.1, pp. 8-40.	Flood Mitigation
The County shall continue to acquire floodplain through the Environmentally Significant Lands Program and cooperative agreements with state and federal acquisition programs.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.3.2, pp. 8-40.	Flood Mitigation
Appropriate floodplain management initiatives for unincorporated areas which may impact or be beneficial to other areas within the watersheds shall be developed.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.3.3, pp. 8-40.	Flood Mitigation
The County shall continue to enforce land development regulations which require the conservation, appropriate use and protection of the quality and quantity of groundwater.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Objective 8.1.5, pp. 8-43.	Wellfield Contamination Mitigation



Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
<p>The County shall enforce the Wellfield Protection program standards, including:</p> <ul style="list-style-type: none"> <li>a. Assure adequate and safe water supplies to present and future citizens of the County;</li> <li>b. Comply with Federal and State regulations in the best interests of the County and its future growth and development;</li> <li>c. Avoid crisis water supply situations through careful groundwater resource planning and conservation;</li> <li>d. Identify and protect the functions of public wellfield areas, including recharge of those areas, and provide incentives to keep the present and future public wellfields compatible with the needs expressed in a. above;</li> <li>e. Ensure that new development is compatible with existing local and regional water supply capabilities; and</li> <li>f. Protect present and future public wellfields against depletion and contamination through appropriate regulation, incentives, and cooperative agreements.</li> </ul>	<p>St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.5.1, pp. 8-43.</p>	<p>Wellfield Contamination Mitigation</p>
<p>St. Lucie County shall continue to cooperate with SFWMD to properly seal unpermitted active drainage wells and abandoned free-flowing artesian wells.</p>	<p>St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.5.4, pp. 8-44.</p>	<p>Drought Mitigation</p>
<p>The County shall conduct a study to identify existing and potential threats to the quality of waters within the Taylor Creek Wellfield Protection Area. The study shall be forwarded to the Board of County Commissioners with recommendations for any corrective measures required to safeguard the Taylor Creek Wellfield Protection Area.</p>	<p>St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.5.5, pp. 8-44.</p>	<p>Wellfield Contamination Mitigation</p>

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
Assist the St. Lucie County Soil and Water Conservation District in those activities directed towards minimizing soil erosion.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.6.3, pp. 8-45.	Erosion Mitigation
The County shall coordinate with other agencies and organization to initiate a data collection program to acquire water quality and turbidity information at five year intervals, as it relates to soil erosion.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.6.4, pp. 8-45.	Soil Erosion
The County shall require the use of native or drought tolerant vegetation adapted to existing soil and climatic conditions in landscaping.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.8.6, pp. 8-47.	Drought
The County shall continue to request assistance in public acquisition of natural areas under federal, state, and regional programs including, but not limited to Preservation 2000, Florida Forever, Florida Communities Trust, Conservation and Recreation Lands, and Save Our Rivers programs.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.8.13, pp. 8-49.	Natural and Technological Disaster Mitigation
The County shall provide multiple use opportunities on County-owned natural preserve areas consistent with natural resource protection and conservation, to provide for passive recreation, wildlife habitat, watershed protection, erosion control, maintenance or enhancement of water quality, aquifer recharge protection, or other such functions.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.8.14, pp. 8-49.	Natural and Technological Disaster Mitigation
The County shall develop a hazardous waste management program for the proper recycling, storage, collection, and disposal or transfer of hazardous materials and wastes.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Objective 8.1.9, pp. 8-50.	Hazardous Materials Disaster Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
The County shall establish a storage transfer facility for household and small quantity generators of hazardous wastes.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.9.1, pp. 8-50.	Hazardous Materials Disaster Mitigation
The County shall develop emergency response plans to handle accidents involving hazardous materials or wastes.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.9.2, pp. 8-50.	Hazardous Materials Disaster Mitigation
The County shall institute a recycling program which includes public education on the beneficial use of hazardous wastes using publicized lists of approved recyclers and by subscription to the Southern Waste Information Exchange.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.9.3, pp. 8-50.	Hazardous Materials Disaster Mitigation
The County shall continue to support State sponsored Amnesty Days to collect hazardous wastes in the County and shall evaluate the need for scheduling local Amnesty Days.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.9.4, pp. 8-50.	Hazardous Materials Disaster Mitigation
The County shall implement an employee training program to properly identify and inspect wastes before they enter the landfill and implement an inspection or screening program to exclude hazardous items such as drums, tanks from unknown sources, waste pesticides, or chemicals for spill cleanups.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.9.5, pp. 8-51.	Hazardous Materials Disaster Mitigation
The County shall participate with the FDEP and other local governments in the region to develop a regional hazardous waste transfer and storage facility and collection network, if appropriate.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.9.6, pp. 8-51.	Hazardous Materials Disaster Mitigation
The County shall seek funding from FDER's Local Hazardous Waste Collection Grants Program to manage hazardous wastes.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.9.7, pp. 8-51.	Hazardous Materials Disaster Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
The County shall conduct a Countywide underground storage tank assessment and assist any owner in seeking funding to respond to any groundwater contamination resulting from leaking tanks.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.9.8, pp. 8-51.	Hazardous Materials Disaster Mitigation
The County shall enact a public education program regarding household hazardous wastes, the proper methods of their disposal and alternative non-hazardous substitutes, in cooperation with schools, news media, and civic organizations, and in conjunction with Amnesty Day awareness programs.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.9.9, pp. 8-51.	Hazardous Materials Disaster Mitigation
The County land development regulations shall require the conservation, appropriate use and protection of current and projected potable water sources.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Objective 8.1.10, pp. 8-51.	Drought Mitigation
The County shall prepare and adopt an emergency water management conservation plan in cooperation with SFWMD.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.10.1, pp. 8-51.	Drought Mitigation
The County shall implement a public education program regarding various methods of water conservation at the household and small business level.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Conservation Element, Policy 8.1.10.3, pp. 8-52.	Drought Mitigation
Calculated needs for public facilities in coastal high hazard areas (CHHA) are subject to all limits and conditions in the Conservation and Coastal Management and Future Land Use Elements of this Plan.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Capital Improvements Element, Policy 11.1.1.6A, pp. 11-46.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
The standards for levels of service for Category Public Facilities, County Stormwater Management Systems and other major stormwater conveyance systems, shall be the 10 year/1 day storm event.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Capital Improvements Element, Policy 11.1.1.15, pp. 11-53.	

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
Regulate areas subject to seasonal and periodic flooding and provide for drainage and stormwater management; protect potable water wellfields and aquifer recharge areas.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Future Land Use Element, Policy 1.1.3.1d and e, pp. 1-36.	Flood Mitigation, Wellfield Contamination Mitigation
Enforce Section 7.07.07 of the land development regulations which require the developer of any site to be responsible for the on-site management of runoff in a manner so that post-development runoff rates, volumes, and pollutant loads do not exceed pre-development conditions.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Future Land Use Element, Policy 1.1.9.9, pp. 1-57.	Flood Mitigation
Future land development activities within the identified Hurricane Vulnerability Zone, shall be consistent with Goal 7.2, its Objectives and Policies, as identified in the Coastal Management Element of the St. Lucie Comprehensive Plan.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Future Land Use Element, Policy 1.1.10.3, pp. 1-58.	Hurricane Mitigation
Erosion control measures shall be limited to those that do not interfere with the natural resources and processes of the coastal area.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.1.1.3, pp. 7-54.	Erosion Mitigation
Future development or redevelopment within the coastal areas shall provide infrastructure to service the development or redevelopment at the Level of Service standards adopted in the appropriate elements of this Comprehensive Plan, and which is consistent with the coastal resource protection, access, and safe evacuation requirement of this Comprehensive Plan, and as further provided for in the Capital Improvements Element.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.1.1.4, pp. 7-55.	Hurricane Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
The County shall continue to evaluate erosion control measures along Indian River Drive south of Ft. Pierce. Erosion control measures shall be consistent with Policy 7.1.2.1.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.1.2.7, pp. 7-57.	Erosion Mitigation
The County shall support and implement programs, in line with the administrative and fiscal constraints of the County, to restore, enhance, and maintain the functions and values of natural waterways and adjacent upland habitats within the coastal area. Through state and local programs, St. Lucie County will continue to encourage the preservation and enhancement of floodplain wetland functions through public purchase and restoration of the floodplain wetlands and adjacent upland buffers along the North Fork of the St. Lucie River and the Indian River Lagoon, including their natural tributaries.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.1.2.9, pp. 7-57.	Flood Mitigation
Beaches and Dunes. St. Lucie County shall provide for the protection and restoration of beaches and dunes. A comprehensive beach and dune management program shall be adopted by 1995 which enhances the natural functioning of the beach-dune system while reducing unnatural disturbances of the primary dune.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Objective 7.1.5, pp. 7-112.	Erosion Mitigation
The County prohibits construction seaward of the Coastal Construction Control Line (CCCL) including construction of coastal or shore protection structures, except where the Florida Department of Natural Resources has issued the applicable permit authorizing that construction.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.1.5.1, pp. 7-62.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
Techniques for inlet maintenance which provide for long-term beach stability through facilitation of normal littoral processes shall be supported.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.1.5.2, pp. 7-62.	Erosion Mitigation
Adequate and effective measures shall be taken to prevent contamination of area waters from spillage or storage tank leakage. A fuel spill operations and contingency plan will be prepared for all new fueling operations in St. Lucie County. The plan will include operation and safety procedures and contingency plans for clean-up of a potential spill.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.1.7.5, pp. 7-66.	Hazardous Materials Mitigation
Reducing vulnerability to hurricanes. St. Lucie County shall strive to protect the people and property in St. Lucie County from the effects of hurricane storm damage. St. Lucie County shall weigh future development as to the impact it would have on the county's ability to protect the people and property in St. Lucie County from the effects of hurricane storm damage.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Goal 7.2, pp. 7-66.	Hurricane Mitigation
The County shall address development and redevelopment in the coastal area in the County's Hurricane Evacuation Plan.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Objective 7.2.1, pp. 7-66.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
The coastal high hazard area shall be defined as all of those properties located within a category one evacuation area. This areas includes all mobile home parks, the barrier islands, and any areas shown on the Army Corp or Engineers Hurricane Surge Maps as being susceptible in a category one storm surge.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.1.1, pp. 7-67.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
New sanitary sewer facilities in the hurricane vulnerability zone shall be flood proofed to prevent inflow and ensure that raw sewage does not leak from them during flood events.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.1.2, pp. 7-67.	Flood Mitigation, Hurricane Mitigation
The construction of County-funded public facilities in the CHHA shall be prohibited, unless the facility is necessary for public access, natural resource restoration or enhancement, or to provide for recreational facilities and other appropriate water dependent facilities.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.1.3, pp. 7-67.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
New development and redevelopment within V or A flood zones as designated by FEMA shall employ building construction techniques which are consistent with the requirements of FEMA's Flood Insurance Program and the County's Coastal Construction Code.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.1.4, pp. 7-67.	Flood Mitigation
The County shall prohibit the use of public funds for infrastructure expansion or improvements in coastal high hazard areas unless such funds are necessary to: <ul style="list-style-type: none"> <li>a. provide services to existing development;</li> <li>b. provide adequate evacuation in the event of emergency; or</li> <li>c. provide for appropriate water dependent uses including the restoration or enhancement of natural resources within the coastal areas.</li> </ul>	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.1.5, pp. 7-67.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
The County shall promote the construction of publicly owned buildings that can be safely utilized as public hurricane shelters.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Objective 7.2.2, pp. 7-67.	Hurricane Mitigation



Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
County-funded building shall include the function of public hurricane shelter in their design. Some of the elements to be considered in the design are: flooding potential, accessibility, rain surcharge on roofs, window/door glass exposures, the use of dedicated roll up/down hurricane shutters, adequate sanitary facilities, emergency power supply, emergency water supply.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.2.1, pp. 7-68.	Hurricane Mitigation
Request in writing that other governmental entities in the County use Policy 7.2.2.1 in the design of new buildings when practicable and that they ask the County's Emergency Management Director to review and comment on proposals for new public buildings.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.2.2, pp. 7-68.	Hurricane Mitigation
Structural and functional designs of County buildings shall be reviewed and retrofitted for public shelters where it is cost effective and/or practical.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.2.3, pp. 7-68.	Hurricane Mitigation
All new residential development in excess of fifty units in areas subject to coastal flooding shall provide shelter space for 20 percent of the residents at spacing requirement of 40 square feet per person, or demonstrate the availability of the shelter space.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.2.4, pp. 7-68.	Flood Mitigation, Hurricane Mitigation
The County shall maintain the worst case 22.5 hour hurricane evacuation time.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Objective 7.2.3, pp. 7-68.	Hurricane Mitigation
Prior to the completion of the improvements described in Policy 7.2.3.1, the direction of traffic flow for one eastbound lane of each of these roadways shall be reversed during periods of emergency evacuation.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.3.2, pp. 7-69.	Hurricane Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
St. Lucie County shall continue to implement the Treasure Coast Hurricane Evacuation Plan	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.3.3, pp. 7-69.	Flood Mitigation, Hurricane Mitigation
All hurricane evacuation studies and plans conducted by or for the County shall be provided to the Treasure Coast Regional Planning Council (TCRPC), nearby counties, and all municipalities within St. Lucie County for review for consistency with regional and local plans. Conversely, St. Lucie County shall request for purposes of review, all hurricane evacuation studies and plans for nearby counties, municipalities within St. Lucie County, and the TCRPC.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.3.5, pp. 7-69.	Hurricane Mitigation
If the FDOT in conjunction with Martin County, decides to widen the Jensen Beach Bridge to South Hutchinson Island, discuss possible St. Lucie County participation in the project with the appropriate parties.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.3.6, pp. 7-69.	Hurricane Mitigation
The County shall provide immediate response to post-hurricane situations through the implementation of post-disaster response and redevelopment plans as set forth in the Treasure Coast Hurricane Evacuation Plan.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Objective 7.2.4, pp. 7-69.	Hurricane Mitigation
After a hurricane, but prior to re-entry of the population into evacuated areas, a special meeting of the Board of County Commissioners shall be convened to hear preliminary damage assessments, appoint a Recovery Task Force, and consider a temporary moratorium on building activities not necessary for the public health, safety, and general welfare.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.4.1, pp. 7-70.	Hurricane Mitigation Post-Disaster Redevelopment

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
A Recovery Task Force shall be named to include the Community Development Director, Emergency Management Director, County Engineer, and Sheriff, and other members as directed by the Chairman of the County Commission. Staff shall be provided by the departments whose directors sit on the Task Force. The Task Force shall be disbanded after implementing its responsibility.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.4.2, pp. 7-70.	
The responsibilities of the Recovery Task Force shall include: review and issuance of emergency building permits; coordination with state and federal officials to prepare disaster assistance applications; analysis and recommendation of hazard mitigation options to the County Commission, including reconstruction or relocation of damaged public facilities; development of a redevelopment plan; and recommendation or amendments to the Comprehensive Plan, Local Peacetime Emergency Plan, and other appropriate policies and procedures.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.4.3, pp. 7-70.	
If appropriate to rebuild structures which suffer damage in excess of fifty percent of their appraised value, current requirements shall be met including those enacted since construction of the structure including the CCCL.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.4.5, pp. 7-70.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
Structures which suffer repeated damage to pilings, foundations, or loadbearing walls and are proposed to be rebuilt shall be required to rebuild landward of their current location or modify the structure to delete the areas most prone to damage.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.4.6, pp. 7-70.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
Repair or reconstruction of seawalls shall be accompanied by beach fill or other appropriate material authorized by the appropriate Federal or State permitting agencies.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.4.7, pp. 7-71.	Erosion Mitigation
The County shall assess the value of all structures in the CHHA and the utility of the land for public access, and evaluate the potential for acquisition, relocation, or other appropriate measures in line with fiscal constraints when post-disaster opportunities arise.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.4.8, pp. 7-71.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
The Recovery Task Force shall review all interagency hazard mitigation reports as they are produced and make recommendations for amendments to the comprehensive plan accordingly.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.2.4.9, ppp. 7-71.	Hurricane Mitigation
The County shall prohibit the use of public funds for infrastructure expansion or improvement in coastal high hazard areas unless such funds are necessary to: provide services to existing development, provide adequate evacuation in the event of emergency, or provide for appropriate water dependent uses including the restoration or enhancement of natural resources within the coastal area.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.4.1.1, pp. 7-72.	Hurricane Mitigation
The County shall require turn lands, parking lanes, or other paved areas, particularly at appropriate intersections, for new or improved roads, which can be used to increase the number of traffic lanes for hurricane evacuation.	St. Lucie County Comprehensive Growth Management Plan, Mar. 2002, Coastal Management Element, Policy 7.4.1.6, pp. 7-73.	

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
The public safety director will assign the individual responsible for establishing and monitoring all Emergency Management training programs and exercises for which the County is responsible. The person assigned this task, in consultation with the Emergency Management Coordinator, will establish an exercise schedule in a manner required by the Florida Division of Emergency Management. All appropriate County and municipal agency personnel will be trained in the implementation of this plan and supporting SOPs to include guidance for the completion and disposition of financial reports.	St. Lucie County Comprehensive Emergency Management Plan, Mar. 1998, Basic Plan, Section VI.A, pp. 66, 67.	Natural and Technological Disaster Mitigation
The Emergency Management Coordinator will keep abreast of and request training from the state on all matters that relate to state and federal programs that would enhance the preparedness of St. Lucie County.	St. Lucie County Comprehensive Emergency Management Plan, Mar. 1998, Basic Plan, Section VI.A, p. 67.	Natural and Technological Disaster Mitigation
The Emergency Management staff will remain current with the highest training credentials possible. They will cooperate with and assist other County and municipal agencies in the conduct of exercises.	St. Lucie County Comprehensive Emergency Management Plan, Mar. 1998, Basic Plan, Section VI.A, p. 67.	Natural and Technological Disaster Mitigation
St. Lucie County, and each of its municipalities, are participants in the National Flood Insurance Program. Citizens cannot buy flood insurance if their local jurisdictional government does not participate in the program. Communities participate in the Community Rating System (CRS), which allows communities to have an impact on the rates paid by their citizens for flood insurance. Communities are classified as Class 1 (most premium reduction allowed) through Class 10 (no reduction allowed). St. Lucie County is currently certified as a Class 9 community under the FEMA CRS classification program.	St. Lucie County Comprehensive Emergency Management Plan, Mar. 1998, Annex II, Section VI.A, p. 16.	Flood Mitigation, Hurricane Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
St. Lucie County has mutual aid agreements with Indian River, Okeechobee, Martin, and Palm Beach Counties, and is a participant in the Statewide Mutual Aid Agreement for Catastrophic Response and Recovery to provide expanded resource capability. These agreements will be developed, coordinated and amended by the Emergency Management Coordinator.	St. Lucie County Comprehensive Emergency Management Plan, Mar. 1998, Annex II, Section VI.B, p. 17.	Natural and Technological Disaster Mitigation
The St. Lucie County Emergency Management Division will determine the impacted areas to be surveyed by the I-Team. The I-Team will then identify opportunities for hazard mitigation within the disaster area, focusing on those areas that are addressed primarily in the state hazard mitigation, and identify possible measures that are funded under the hazard mitigation grant program.	St. Lucie County Comprehensive Emergency Management Plan, Mar. 1998, Annex II, Section VI.B.1, p. 18.	Post-Disaster Redevelopment, Natural and Technological Disaster Mitigation
The adoption of County Ordinance No. 87-12 (as amended) entitled "Storm Water Management and Flood Protection", which provides for the regulation of development in the 100-year floodplains as identified by FEMA Flood Insurance Rate Maps (FIRM). The purpose of the ordinance is to allow development to occur while maintaining the functions of the floodplain to the maximum extent feasible, while providing for protection of life and property.	St. Lucie County Comprehensive Emergency Management Plan, Mar. 1998, Annex II, Section VI.C.1.b, p. 19.	Flood Mitigation, Hurricane Mitigation
The adoption of County Ordinance No. 86-21, entitled "Coastal Construction Code", to provide minimum standards for the design and construction of buildings and structures (other than coastal protective structures) and to reduce the harmful effects of hurricanes and other natural disasters occurring along the coastal areas of the County.	St. Lucie County Comprehensive Emergency Management Plan, Mar. 1998, Annex II, Section VI.C.1.c, p. 19.	Natural and Technological Disaster Mitigation, Hurricane Mitigation

Table A.1. (Continued).

Policy/Objective/Goal	Source	Notes
The Emergency Management staff attending meetings (Public Service Advisory Council, Planning and Zoning Board, Metropolitan Planning Organization, DRI reviews, etc.) to provide input for building issues relative to public safety as well as assisting with the guidance of long-term redevelopment.	St. Lucie County Comprehensive Emergency Management Plan, Mar. 1998, Annex II, Section VI.C.1.f, p. 20.	Natural and Technological Disaster Mitigation
The Land Acquisition Advisory Committee purchases environmentally sensitive lands formerly zoned and/or platted as buildable properties. This initiative is a mitigation strategy used to prevent community growth in areas determined as environmentally sensitive, not in the public interest and those known to be subject to repetitive weather phenomenon.	St. Lucie County Comprehensive Emergency Management Plan, Mar. 1998, Annex II, Section VI.C.1.h, p. 20.	Flood Mitigation, Hurricane Mitigation
<p>To protect human life and health;</p> <p>To minimize expenditure of public money for costly flood projects;</p> <p>To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;</p> <p>To minimize prolonged business interruptions;</p> <p>To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in the floodplains;</p> <p>To help maintain a stable tax base by providing for the sound use of development of flood-prone areas in such a manner as to minimize flood blight areas; and</p> <p>To ensure that potential home buyers are notified that property is in a flood area.</p>	St. Lucie County Land Development Code, Aug. 2000, Chapter 6.05.00.	Flood Mitigation

CCCL = Coastal Construction Control Line.

CHHA = Coastal High Hazard Area.

CRS = Community Rating System.

DRI = Disaster Recovery Initiative.

FDEP = Florida Department of Environmental Protection.

FDER = Florida Department of Environmental Resources.

FDOT = Florida Department of Transportation.

FEMA = Federal Emergency Management Agency.

NAAQS = National Ambient Air Quality Standards.

SFWMD = South Florida Water Management District.

TCRPC = Treasure Coast Regional Planning Council.

Table A.2. Existing hazard mitigation in the City of Ft. Pierce Comprehensive Growth Management Plan.

Policy/Objective/Project	Source	Notes
Air quality in the city shall continue to meet or exceed the minimum air quality levels established by the Florida Department of Environmental Regulation (FDER).	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Objective 6.1.1, p. 6-45; EAR, 1996, p. M-14.	Air Pollution Mitigation Air quality is at same level as before.
The city shall cooperate with other local and state agencies to reduce air pollutants on a regional level.	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Policy 6.1.1.3, p. 6-45.	Air Pollution Mitigation
Surface and sub-surface water resources in the city shall be managed in a manner which ensures their viability as natural habitats and utility for recreational and potable water uses.	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Objective 6.1.2, p. 6-45.	Wellfield Contamination
The city shall amend, adopt, and implement land development regulations to ensure that proposed developments comply with the County-wide Wellfield Protection Program once adopted by the County.	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Objective 6.1.2.2, p. 6-45.	Wellfield Contamination
The city shall continue to work with the County to establish a Wellfield Protection Program.	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Policy 6.1.2.7, p. 6-46.	Wellfield Contamination
The city, in conjunction with the South Florida Water Management District, shall develop, adopt, and enforce provisions for monitoring and regulating water use as necessary by 1991 in order to prolong freshwater availability.	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Objective 6.1.3, p. 6-46.	Drought Mitigation



Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
The city shall work closely with the SFWMD in preparing and adopting an emergency water management conservation plan.	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Policy 6.1.3.1, p. 6-46.	Drought Mitigation
The city shall implement land development regulations to ensure: wastewater reuse for irrigation where practicable; separate metering for irrigation with potable water; a reduction in use of potable water for irrigation; and a more efficient operation of irrigation systems including the incorporation of such devices as soil water tensiometers and xeric landscaping where appropriate.	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Policy 6.1.3.2, p. 6-47.	Drought Mitigation
The city shall work towards the further education of the public regarding various methods of water conservation at the household and small business level.	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Policy 6.1.3.3, p. 6-47.	Drought Mitigation
By 1991, the city shall adopt provisions to control soil erosion.	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Objective 6.1.4, p. 6-47; EAR, 1996, p. M-14.	Erosion Mitigation Erosion continues, but beach renourishment is underway.
Hazardous waste issues shall be addressed and enforced through a coordinated effort.	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Objective 6.1.6, p. 6-48; EAR, 1996, p. M-14.	Hazardous Materials Disaster Mitigation County facility has helped as a storage site for household hazardous waste.
The city shall work closely with the DER and the County to identify small quantity hazardous waste generators and develop programs to dispose of the wastes properly.	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Policy 6.1.6.1, p. 6-48.	Hazardous Materials Disaster Mitigation

Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
The city shall assist the County in implementing programs for the proper storage, collection, recycling, and disposal of hazardous waste.	City of Ft. Pierce Comprehensive Growth Management Plan, Conservation Element, Policy 6.1.6.2, p. 6-48.	Hazardous Materials Disaster Mitigation
Public expenditures that subsidize development in CHHAs should be limited to those improvements included in the Coastal Management Element.	City of Ft. Pierce Comprehensive Growth Management Plan, Capital Improvements Element, Objective 9.1.2, p. 9-24.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
The city should not expend funds in CHHAs unless the facility is for public access or resource restoration/maintenance.	City of Ft. Pierce Comprehensive Growth Management Plan, Capital Improvements Element, Policy 9.1.2.1, p. 9-24.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
The City should continue to provide or require provision of recreational facilities within CHHAs.	City of Ft. Pierce Comprehensive Growth Management Plan, Capital Improvements Element, Policy 9.1.2.2, p. 9-25.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
Erosion control measures on Hutchinson Island should be limited to those that do not interfere with normal littoral processes, sea turtle nesting and hatching activities, or negatively impact coastal natural resources.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.1.4, p. 5-56.	Erosion Mitigation
Within one year of the Comprehensive Plan adoption, the City shall revise its Land Development Regulations to require the use of native vegetation in landscaping all new developments or major redevelopments.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.1.5, p. 5-56.	Drought Mitigation, Erosion Mitigation
The city should support the Army Corps of Engineers (ACOE) or other appropriate agencies providing for inlet maintenance which provide for long-term beach stability through facilitation and management of normal littoral processes.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.1.6, p. 5-56.	Erosion Mitigation

Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
The city shall encourage the use of pilings to elevate structures and other low impact methods in areas with native vegetation by providing information, site plan review and design assistance to developers.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.1.10, p. 5-56.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
The following criteria should be applied to all proposed marinas and should be considered during the preparation of a marina siting plan including:	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.1.11, p. 5-56, 5-57.	Hazardous Materials Disaster Mitigation
9. In the event marina fueling facilities are developed, adequate and effective measures shall be taken to prevent contamination of area waters from spillage or storage tank leakage.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.1.11, p. 5-56, 5-57.	Hazardous Materials Disaster Mitigation
10. Prior to operation of marina fueling facilities, the developer shall concurrently submit to the city a copy of the application for a terminal facility and the applicable portion of the FDNR Florida Coastal Pollutant Spill Contingency Plan. The plan shall describe the methods of fuel storage, personnel training, methods to be used to dispense fuel, and all the procedures, methods, materials, and emergency response contractors to be used in the event of a spill.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.1.11, p. 5-56, 5-57.	Hazardous Materials Disaster Mitigation
Marinas shall include a hurricane contingency plan which shall include those methods to be taken to secure property and facilities at the marina, the time period necessary to complete the security preparations and the safe evacuation of all marina personnel and those who rent or own space at the marina.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.1.11, p. 5-57.	Hurricane Mitigation

Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
By August 1, 1995 enact ordinances that require public, commercial, and private marinas with more than ten wet slips to prepare a marina hurricane evacuation plan and submit said plan to the St. Lucie County Office of Emergency Management. The County will advise the marina operator as to the plan's sufficiency.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.1.15, p. 5-58.	Hurricane Mitigation
The city shall revise its Land Development Regulations to provide for the protection and restoration of beaches and dunes and establish construction standards which will minimize the impacts of man-made structures on beaches and dunes.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Objective 5.1.4, p. 5-59.	Erosion Mitigation
Construction seaward of the Coastal Construction Control Line (CCCL) should be prohibited, including construction of coastal or shore protection structures, except as approved by the city or FDNR, or for public access or resource restoration.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.4.1, p. 5-59.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
The city will request that the FDNR re-establish the CCCL every five years.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.4.4, p. 5-60.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation

Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
The city shall revise its land development regulations to ensure that construction and development activities are carried out in a manner which will minimize the danger to life and property from hurricanes, restrict development and direct population concentration away from Coastal High Hazard Areas (CHHA) and limit public expenditures in such areas or which encourage development of such areas.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Objective 5.1.6, p. 5-60; EAR, 1996, p. M-12.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation LDRs revised
New sanitary sewer facilities in the hurricane vulnerability zone should be evaluated for possible flooding to prevent inflow and equipment damage. Raw sewage should not leak from sanitary sewer facilities during flood events.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.6.1, p. 5-60.	Flood Mitigation, Hurricane Mitigation
The drinking water storage and repump facility at Jaycee Park should be examined and evaluated for hardening towards storm surge and flooding.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.6.2, p. 5-60.	Flood Mitigation, Hurricane Mitigation
City-funded public facilities should not be built in the coastal high-hazard areas, unless the facility is for public access or resource restoration/maintenance or serving existing development.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.6.3, p. 5-61.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
Ensure that new development and redevelopment with V or A flood zones as designated by the Federal Emergency Management Agency employs building construction techniques which are consistent with the requirements of the Federal Emergency Management Agency Flood Insurance Program.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.6.4, p. 5-61.	Flood Mitigation, Hurricane Mitigation

Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
The city, in cooperation with County and other Emergency Preparedness Officials, shall undertake an ongoing program to ensure adequate emergency shelters spaces are available and maintained to meet the needs of general evacuation and special needs population.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Objective 5.1.7, p. 5-61; EAR, 1996, p. M-12.	Hurricane Mitigation Program adopted, more shelters are present than in 1990.
The city shall require that all future municipality-owned buildings be constructed in such a manner that they can be safely utilized as public hurricane shelters.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.7.1, p. 5-61.	Hurricane Mitigation
By 1991, the city shall review all commercial and public development plans for use as potential emergency shelters.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.7.2, p. 5-61.	Hurricane Mitigation
Critical evacuation roadway links shall receive high priority for annual maintenance and capital improvement expenditures.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.8.4, p. 5-62.	Hurricane Mitigation
The city shall by the year 2000, with the financial assistance of the County and other appropriate agencies, improve the accesses to South Hutchinson Island within the city to decrease the probability of pre-landfall storm surge flooding.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.8.5, p. 5-62.	Flood Mitigation, Hurricane Mitigation
The city shall annually notify all residents of hurricane evacuation procedures and shelters for those with special needs, such as the handicap and the infirmed.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.8.6, p. 5-62.	Hurricane Mitigation
The city shall request all residents to evacuate immediately once an evacuation order has been issued.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.8.7, p.5-62.	Hurricane Mitigation

Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
The city shall immediately respond to post-hurricane situations through the implementation of post-disaster response and redevelopment plans to be prepared and adopted by October 1, 1992.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Objective 5.1.9, p.5-62; EAR, 1996, p. M-12.	Hurricane Mitigation, Post-Disaster Redevelopment Plans prepared and will be used.
If rebuilt, structures which suffer damage in excess of fifty percent of their appraised value shall be rebuilt to meet all current requirements including those enacted since construction of the structure.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.9.6, p. 5-63.	Flood Mitigation, Hurricane Mitigation, Post-Disaster Redevelopment
Structures which suffer repeated damage to pilings, foundations, or loadbearing walls shall be required to rebuild landward of their current location or to modify the structure to delete the areas most prone to damage.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.9.7, p. 5-63.	Flood Mitigation, Hurricane Mitigation, Post-Disaster Redevelopment
The Recovery Task Force shall review all interagency hazard mitigation reports as they are produced and make recommendations for amendments to the Comprehensive Plans accordingly.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.9.8, p. 5-63.	Hurricane Mitigation, Post-Disaster Redevelopment
The service area shall be consistent with the goals, objectives, and policies of this and all other elements of this comprehensive plan and shall take place in a manner which is financially acceptable, ensures the health, safety, and welfare of the residents, and limits the use of public funds in high-hazard coastal areas.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Objective 5.1.11, p. 5-64.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation

Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
Public funds shall not be used for infrastructure expansion or improvements in high-hazard coastal areas unless such funds are necessary to: provide services to existing development; provide adequate evacuation in the event of an emergency; or provide for recreational needs and other appropriate water dependent uses.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.11.1, p. 5-64.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
Beach renourishment projects shall meet the following level of service standards: Beach fill must include a protective berm high enough to prevent flooding by a ten-year storm event, and beach renourishment project shall have a design life of at least five years.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.11.4, p. 5-64.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
Developments must demonstrate that they will not affect a renourished beach in a manner which would reduce the level of service provided by the renourished beach.	City of Ft. Pierce Comprehensive Growth Management Plan, Coastal Management Element, Policy 5.1.11.5, p. 5-64.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
Potable water wellfields and prime aquifer recharge areas as described in the infrastructure element should be protected from the adverse impacts of development.	City of Ft. Pierce Comprehensive Growth Management Plan, Future Land Use Element, Policy 1.1.4.2, p. 1-70.	Wellfield Contamination Mitigation
Site developers should be responsible for meeting local and SFWMD storm water runoff and pollutant loads.	City of Ft. Pierce Comprehensive Growth Management Plan, Future Land Use Element, Policy 1.1.4.4, p. 1-70.	Flood Mitigation
Development within the 100-year floodplain should be allowed if such development will not have a hindering effect upon the overall storm drainage system or underground aquifers.	City of Ft. Pierce Comprehensive Growth Management Plan, Future Land Use Element, Policy 1.1.4.5, p. 1-70.	Flood Mitigation, Wellfield Contamination Mitigation



Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
Land use regulations shall be developed which regulate areas subject to seasonal and periodic flooding and provide for drainage and stormwater management consistent with the Infrastructure Element of this Comprehensive Plan.	City of Ft. Pierce Comprehensive Growth Management Plan, Future Land Use Element, Policy 1.1.4.11, p. 1-70.	Flood Mitigation
Population densities within the city's coastal area shall be coordinated with St. Lucie County and the Treasure Coast Regional Planning Council hurricane evacuation plans.	City of Ft. Pierce Comprehensive Growth Management Plan, Future Land Use Element, Objective 1.1.5, p. 1-70.	Hurricane Mitigation
Local and regional hurricane evacuation planning should be reviewed in order that island residential densities may be adjusted accordingly.	City of Ft. Pierce Comprehensive Growth Management Plan, Future Land Use Element, Policy 1.1.5.1, p. 1-70.	Hurricane Mitigation
Improvements to the island transportation network as identified in hurricane evacuation studies should be coordinated with impactive residential development.	City of Ft. Pierce Comprehensive Growth Management Plan, Future Land Use Element, Policy 1.1.5.2, p. 1-70.	Hurricane Mitigation
The city shall review, and revise where necessary, land development regulations to ensure that they contain specified and detailed provisions intended to implement the adopted Comprehensive Plan, and which as a minimum: regulates development which has a potential to contaminate water, soil, or crops; regulates areas subject to seasonal and periodic flooding and provides for drainage and stormwater management consistent with the Infrastructure Element of this Comprehensive Plan; and protects potable water wellfields and aquifer recharge areas.	City of Ft. Pierce Comprehensive Growth Management Plan, Future Land Use Element, Policy 1.1.12.1.d,e,f, p. 1-73.	Flood Mitigation, Wellfield Contamination Mitigation

Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
By 1991, the city shall establish an interlocal agreement with the County for coordination of the monitoring and disposal of hazardous waste. As a result of the agreement, a hazardous waste management program shall be developed that includes, at a minimum, the following components:	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.6, p. 70; EAR, 1996, p. M-10.	Hazardous Materials Disaster Mitigation Programs expanded, but percentage decrease not met.
A procedure to update and inventory the number of waste generators and the type and quantity of waste and materials generated within the city.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.6, p. 70.	Hazardous Materials Disaster Mitigation
Registration of generators within the city through the use of Standard Industrial Classification (SIC) codes on city and County occupational license applications.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.6, p. 71.	Hazardous Materials Disaster Mitigation
Periodic inspections of the facilities of waste generators and handlers to ensure that proper procedures are being followed.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.6, p. 71.	Hazardous Materials Disaster Mitigation
Procedures for emergency response and cleanup in the event of a hazardous waste spill, including provisions that can be attached as conditions to site plan approval, when appropriate.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.6, p. 71.	Hazardous Materials Disaster Mitigation
Periodic collection of household and small quantity generator hazardous waste and materials.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.6, p. 71.	Hazardous Materials Disaster Mitigation
Establishment of a public education program on the proper handling and disposal of hazardous waste and materials.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.6, p. 71.	Hazardous Materials Disaster Mitigation

Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
A resolution from the City Commission supporting the establishment of a hazardous waste storage/transfer facility within St. Lucie County.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.6, p. 71.	Hazardous Materials Disaster Mitigation
The city shall coordinate with St. Lucie County in adopting an interim wellfield protection ordinance by 1990. It should be designed to regulate land use activities within the cones of depression of the wellheads. This ordinance shall include, at a minimum, the following:	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.7, p. 71.	Wellfield Contamination Mitigation
Determination of appropriate and inappropriate land uses within the zones of influence.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.7.a, p. 71.	Wellfield Contamination Mitigation
Procedures for condemnation and elimination of existing and inappropriate land uses.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.7.b, p. 71.	Wellfield Contamination Mitigation
Structural containment standards for regulated materials.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.7.c, p. 71.	Wellfield Contamination Mitigation
Requirements for installation of monitoring wells.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.7.d, p. 71.	Wellfield Contamination Mitigation
Procedures for emergency reporting, cleanup, personnel training and material inventory.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.7.e, p. 71.	Wellfield Contamination Mitigation

Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
Establishment of financial responsibility.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.1.7.f, p. 71.	Wellfield Contamination Mitigation
The city shall continue to coordinate and cooperate with St. Lucie County in updating and implementing the County-wide Solid Waste Master Plan. To this end, the city puts special emphasis on the following: Development of a hazardous waste management program.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.3.2, p. 72.	Hazardous Materials Disaster Mitigation
By 1991, expand existing programs for the conservation of potable water resources within the city including the adoption of a new development and redevelopment per capita level of service standard which is 10% less than that used in the 1988 FPUA Master Plan. By the year 2000, these conservation efforts shall result in a water demand reduction of 2% or greater than that determined by using the 1998 FPUA Master Plan level of services of 170 gallons per capita per day.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Objective 4.1.5, p. 74.	Drought Mitigation
The Fort Pierce City Commission and the Utilities Authority shall develop a water conservation program which will include the following components:	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.5.1, p. 75.	Drought Mitigation
A landscape ordinance which requires xeriscape or the use of native vegetation for a portion of all new development and redevelopment landscape plans.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.5.1.a, p. 75.	Drought Mitigation

Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
Reduction in the use of potable water for irrigation purposes.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.5.1.b, p. 75.	Drought Mitigation
An education program to inform the public of various water conservation techniques and devices.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.5.1.c, p. 75.	Drought Mitigation
An ordinance requiring the use of water saving plumbing devices in new development and redevelopment.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.5.1.d, p. 75.	Drought Mitigation
The city shall meet annually with the Utilities Authority to assess the effectiveness of conservation programs and to identify additional conservation methods that can be utilized.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.5.2, p. 75.	Drought Mitigation
New potable water wells and wellfields shall be located in areas where not regulated materials will be used, handled, stored, or produced within the projected cones of depression of such wells or wellfields. At the time future wellfield locations are identified, establishment of incompatible land uses within the cones of depression of such wells shall be prohibited.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.6.3, p. 75.	Wellfield Contamination Mitigation
The City shall continue to actively enforce new development stormwater drainage requirements with the requirements of the South Florida Water Management District.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.6.5, p. 76.	Flood Mitigation

Table A.2. (Continued).

Policy/Objective/Project	Source	Notes
During redevelopment activities, the city shall, where feasible, retrofit the existing stormwater outfall system to provide for greater retention/detention capability.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.6.6, p. 76.	Flood Mitigation Post-Disaster Redevelopment
The city and the utilities authority shall actively seek and secure new potable water wells and wellfields in the city and County in order that a continuing supply of potable water will be available for existing and future areas served by the FPUA.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.6.7, p. 76.	Drought Mitigation
The city shall adopt land development regulations for the protection of natural drainage features.	City of Ft. Pierce Comprehensive Growth Management Plan, Infrastructure Element, Policy 4.1.6.8, p. 76.	Flood Mitigation

ACOE = Army Corps of Engineers.

CCCL = Coastal Construction Control Line.

CHHA = Coastal High Hazard Area.

DER = Department of Environmental Resources.

FDER = Florida Department of Environmental Resources.

FDNR = Florida Department of Natural Resources.

FPUA = Fort Pierce Utility Authority.

SFWMD = South Florida Water Management District.

SIC = Standard Industrial Classification.

Table A.3. Existing hazard mitigation in the City of Port St. Lucie Comprehensive Growth Management Plan.

Policy/Objective/Goal	Source	Notes
The City shall protect potable water wellfields and prime aquifer recharge areas through the implementation of a Wellfield Protection Ordinance. The ordinance shall include types of permitted uses and buffer area requirements around such sites in order to protect water supplies.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Future Land Use Element, Policy 1.1.1.3, p. 1-38.	Wellfield Contamination Mitigation
Proposals for development within the 100-year floodplain as identified by the Federal Emergency Management Agency shall conform with local regulations for development in such areas.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Future Land Use Element, Policy 1.1.1.4, p. 1-38.	Flood Mitigation
Through the site plan review process the developer/owner of any site shall be responsible for the on-site management of stormwater runoff so that post development runoff rates, volumes, and pollutant loads do not exceed adopted level of service standards.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Future Land Use Element, Policy 1.1.1.5, p. 1-38.	Flood Mitigation
A soil erosion and sedimentation control plan shall be required as part of an application for a building permit or grading and excavating permit whenever a development will involve any clearing, grading, transportation, or other form of disturbing land by the movement of earth, including the mining of minerals, sand and gravel.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Future Land Use Element, Policy 1.1.1.6, p. 1-38.	Erosion Mitigation
Future growth and development will be managed through the preparation, adoption, implementation and enforcement of land development regulations, including the use of PUDs, mixed use projects and to ensure coordination and consistency with interagency hazard mitigation plans of resource planning and management plans pursuant to Chapter 380, F.S.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Future Land Use Element, Objective 1.1.6, p. 1-45.	Natural and Technological Disaster Mitigation

Table A.3. (Continued).

Policy/Objective/Goal	Source	Notes
Regulate areas subject to seasonal and periodic flooding and provide for drainage and stormwater management in order to reduce likelihood of future flooding problems.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Future Land Use Element, Policy 1.1.6.1, p. 1-45.	Flood Mitigation
Protect potable water wellfields and aquifer recharge areas from incompatible uses and degradation of water quality.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Future Land Use Element, Policy 1.1.6.1, p. 1-45.	Wellfield Contamination Mitigation
Platted areas that will be sewered shall be reviewed by PSLUSD according to the following criteria: Areas subject to flooding in the 100-year flood.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.A.1.2.1, p. 4A-21.	Flood Mitigation
The City will continue to investigate the feasibility of expanded reuse of treated wastewater for irrigation and landscaping.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.A.1.2.4, p. 4A-22.	Drought Mitigation
The use for irrigation quality (IQ) water from reclaimed domestic wastewater shall be required for nonresidential irrigation where not expressly prohibited by statute, rule or ordinance.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Goal 4.A.2, p. 4A-23.	Drought Mitigation
By the year 1999, the city will develop an IQ water master plan to service parks, golf courses, and commercial properties within the city.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Objective 4.A.2.1, p. 4A-23.	Drought Mitigation
Develop and implement a hazardous material management plan for the city.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Goal 4.B.2, p. 4B-8.	Hazardous Materials Disaster Mitigation
The city will continue to support the county emergency response plan in accordance with the Superfund Amendments and Reauthorization Act 1 (SARA), of 1986, Title III, 50 CFR Part 370.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Objective 4.B.2.1, p. 4B-8.	Hazardous Materials Disaster Mitigation



Table A.3. (Continued).

Policy/Objective/Goal	Source	Notes
The city will meet with representatives of St. Lucie County, the Treasure Coast Regional Planning Council, the St. Lucie County Health Unit, and the regulated members of the business community to update the countywide hazardous materials management plan as necessary.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.B.2.1.1, p. 4B-9.	Hazardous Materials Disaster Mitigation
The city will utilize data from the County Government Hazardous Waste Assessment for St. Lucie County along with occupational license data collected by the St. Lucie County Health Unit, to identify the potential locations of hazardous waste or hazardous materials.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.B.2.1.2, p. 4B-9.	Hazardous Materials Disaster Mitigation
By the year 2000, the city will review, revise, and adopt new regulations as needed regarding a hazardous materials management plan for the city in accordance with Objective 4.B.2.1.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Objective 4.B.2.2, p. 4B-9.	Hazardous Materials Disaster Mitigation
The plan will continue to include elements for protection of wellfields and watersheds.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.B.2.2.1, p. 4B-9.	Wellfield Contamination Mitigation
The plan will include provisions for spill prevention control and countermeasures (SPCC) plans at regulated business.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.B.2.2.2, p. 4B-9.	Hazardous Materials Disaster Mitigation
The plan will include provision for periodic inspection by code enforcement officers.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.B.2.2.3, p. 4B-9.	Hazardous Materials Disaster Mitigation
The city shall continue to support St. Lucie County with its educational program to inform the city's residents of effective methods to safely store and dispose of household and commercial hazardous material, and procedures to follow in emergencies.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.B.2.2.4, p. 4B-9.	Hazardous Materials Disaster Mitigation

Table A.3. (Continued).

Policy/Objective/Goal	Source	Notes
The city will continue to cooperate with the County in "Amnesty Days" and other methods to be used to encourage the collection and disposal of household and commercial hazardous waste material.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.B.2.2.5, p. 4B-9.	Hazardous Materials Disaster Mitigation
The city will document efforts to review and refine citywide flood mitigation program.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Objective 4.C.1.2, p. 4C-7.	Flood Mitigation
The city will continue to maintain an inventory of flooding complaints.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.C.1.2.1, p. 4C-7.	Flood Mitigation
The city will continue to investigate and plan for correcting flooding problems.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.C.1.2.2, p. 4C-7.	Flood Mitigation
The city will continue to update the recently completed survey of elevations of street culvert drainage rights-of-ways.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.C.1.2.4, p. 4C-7.	Flood Mitigation
The city will document efforts to continue to review and refine drainage improvements as needed.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Objective 4.C.1.3, p. 4C-7.	Flood Mitigation
The city will continue to inventory and map problem areas and determine the adequacy of existing drainage plans in protecting life, property, and the environment.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.C.1.3.1, p. 4C-7.	Flood Mitigation
The city will maintain the computer data bases connected with the topographical maps.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.C.1.3.2, p. 4C-7.	Flood Mitigation

Table A.3. (Continued).

Policy/Objective/Goal	Source	Notes
The city will maintain existing base maps for the sub-basin areas, according to existing and future land use and maintain the existing levels of service.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.C.1.3.3, p. 4C-7.	Flood Mitigation
The city will continue to limit development in the floodplain of the NFSLR to preservation, conservation, and public recreation uses and public interest projects of overriding public benefit, such as roads, hurricane evacuation routes, marinas, etc.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.C.1.3.4, p. 4C-7.	Flood Mitigation, Hurricane Mitigation
At a minimum, the land development regulations have addressed the following management techniques as part of the interim drainage plan, and will continue to do so: The monitoring, inspection, and maintenance of all existing and future stormwater facilities.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.C.1.6.1, p. 4C-8.	Flood Mitigation
Property in flood prone areas that is damaged to 50% of its value will not be rebuilt in the flood prone location.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.C.1.6.2, p. 4C-8.	Flood Mitigation
Calculated fire flows for system design shall be based on the Insurance Services Office Guide for Determination of Required Fire Flow, latest edition.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.D.1.2.3, p. 4D-13.	Fire Mitigation
The city will continue to investigate the feasibility of expanded reuse of treated wastewater for irrigation and landscaping in order to reduce the demand for potable water where it is economically feasible to do so.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.D.1.2.5, p. 4D-13.	Drought Mitigation

Table A.3. (Continued).

Policy/Objective/Goal	Source	Notes
The city in conjunction with PSLUSD, St. Lucie County and the South Florida Water Management District, will have established the locations and zones of groundwater influence of existing and proposed public water supply wells and/or wellfields to provide a water supply through buildout of the city, and abide by FDEP district standards.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Objective 4.D.2.1, p. 4D-14.	Wellfield Contamination Mitigation
The siting of new wells or wellfields shall consider the sanitary and water quality hazards of existing and proposed land uses. Hazards may include, but not be limited to, septic tanks, canals, surface water management systems (recharge areas), commercial properties, abandoned dumpsites and transportation systems.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.D.2.1.1, p. 4D-14.	Wellfield Contamination Mitigation
The city shall continue to prohibit by ordinance the installation of septic tanks or the application of IQ water from wastewater effluent within two hundred (200) feet of any existing or proposed public water supply well in the shallow aquifer.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.D.2.1.2, p. 4D-14.	Wellfield Contamination Mitigation
The city, through its Planning and Zoning Department, shall continue to review proposed development, for the potential for release of hazardous materials that may contaminate public drinking water supply wells, in accordance with the Interim Wellfield Protection Ordinance.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.D.2.1.3, p. 4D-14.	Wellfield Contamination Mitigation
The city will continue to enforce ordinances requiring water conserving plumbing fixtures and irrigation systems in new construction.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Objective 4.D.2.2, p. 4D-14.	Drought Mitigation

Table A.3. (Continued).

Policy/Objective/Goal	Source	Notes
The city will continue to require the use of IQ water instead of drinking water for irrigation of commercial and public properties wherever it is practicable and feasible.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Infrastructure Element, Policy 4.D.2.2.1, p. 4D-14.	Drought Mitigation
Maintain and enhance the social and economic resources of the Port St. Lucie coastal planning area through the regulation of development activities that would damage or destroy such resources, or threaten human life and cause unnecessary public expenditures in areas subject to destruction by natural disasters.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Goal 5.1, p. 5-48.	Hurricane Mitigation, Natural and Technological Disaster Mitigation
By 1999, the city will review and revise where needed land development regulations which direct population concentrations away from known or predicted coastal high hazard areas and limit public expenditures that subsidize development permitted in high-hazard areas except for restoration or enhancement of natural resources.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Objective 5.1.3, p. 5-48.	Erosion Mitigation, Flood Mitigation and Hurricane Mitigation
The Coastal High Hazard Area shall include all areas within the Category 1 evacuation zone.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.1.3.1, p. 5-48.	Erosion Mitigation, Flood Mitigation and Hurricane Mitigation

Table A.3. (Continued).

Policy/Objective/Goal	Source	Notes
Within six months of the conclusion of each annual hurricane season, the city shall review the status of lands within its corporate limits and determine whether any areas of the city meet the criteria of a coastal high hazard area as stated under Rule 9J-5.003(19). For those areas meeting the criteria for designation as a coastal high hazard area, the city shall, within one year, designate them as such; to limit development in these areas; and identify management techniques for relocating infrastructure away from such area, except for those areas determined to have vested development rights.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.1.3.2, p. 5-48.	Erosion Mitigation, Flood Mitigation and Hurricane Mitigation
Except for those areas determined to have vested development rights, the city shall limit land use densities and direct infrastructure improvements away from coastal high hazard areas through the implementation of the LDRs.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.1.3.3, p. 5-48.	Erosion Mitigation, Flood Mitigation and Hurricane Mitigation
Complete new roads or improvements in the coastal planning area to increase the number of traffic lanes for hurricane evacuation.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.1.4.2, p. 5-49.	Hurricane Mitigation
The city shall provide all hurricane evacuation studies and plans to the TCRPC, adjacent counties, and all other municipalities within St. Lucie County for consistency with regional and local plans before their adoption and implementation.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.1.4.3, p. 5-49.	Hurricane Mitigation
Prepare post-disaster redevelopment plans that will reduce or eliminate the exposure of human life, public property, and private property to natural hazards.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Objective 5.1.5, p. 5-49.	Hurricane Mitigation, Post-Disaster Redevelopment

Table A.3. (Continued).

Policy/Objective/Goal	Source	Notes
The city shall update as needed, the current Local Peacetime Emergency Plan, to contain step-by-step details for post-disaster recovery operations.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.1.5.1, p. 5-49.	Hurricane Mitigation, Post-Disaster Redevelopment
After a hurricane, but before re-entry of the population into evacuated areas, the City Council shall meet to hear preliminary damage assessments, appoint a Recovery Task Force.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.1.5.2, p. 5-49.	Hurricane Mitigation, Post-Disaster Redevelopment
The City's Emergency Management Team shall coordinate disaster preparation and recovery measures.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.1.5.3, p. 5-49.	Hurricane Mitigation, Post-Disaster Redevelopment
The City's Emergency Task Force shall: review and decide upon emergency building permits; coordinate with state and federal officials to prepare disaster assistance applications; analyze and recommend to the City Council hazard mitigation options including reconstruction or relocation of damaged public facilities; develop a redevelopment plan; and, recommend amendments to the comprehensive plan, Local Peacetime Emergency Plan, and other appropriate policies and procedures.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.1.5.4, p. 5-49.	Hurricane Mitigation, Post-Disaster Redevelopment
If rebuilt, structures that suffer damage more than fifty percent of their appraised value shall be rebuilt to meet all current requirements including those enacted since construction of the structure.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.1.5.6, p. 5-49.	Hurricane Mitigation, Post-Disaster Redevelopment

Table A.3. (Continued).

Policy/Objective/Goal	Source	Notes
The Recovery Task Force shall review all interagency hazard mitigation reports and make recommendations for amendments to the comprehensive plan accordingly.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.1.5.7, p. 5-49.	Hurricane Mitigation, Post-Disaster Redevelopment
Air quality in the City shall not violate standards set by DEP.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Objective 5.2.1, p. 5-51.	Air Pollution Mitigation
Examine measures to monitor and reduce water consumption by 10% within the 10-year planning period, and thus conserve and protect the quantity of current and projected water sources.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.2.2.1, p. 5-51.	Drought Mitigation
Work closely with the SFWMD to prepare and adopt by 1999, an emergency water management conservation plan in accordance with the plans of the District.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.2.2.2, p. 5-51.	Drought Mitigation
Work towards further education of public regarding various methods of water conservation at the household and small business level, and by 1999, either develop a water conservation brochure or use one available through the SFWMD.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.2.2.3, p. 5-51.	Drought Mitigation
Examine and revise, if needed, land development regulations that require water conserving landscape design, with minimum native vegetation requirements.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.2.2.4, p. 5-51.	Drought Mitigation



Table A.3. (Continued).

Policy/Objective/Goal	Source	Notes
The City shall continue to enforce the "St. Lucie County Public Wellfield Protection Ordinance," and restrict activities that adversely affect water quality and quantity.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.2.2.5, p. 5-51.	Wellfield Contamination Mitigation
Institute a public education program targeted at known problem areas regarding dumping of debris and maintenance of stormwater swales.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.2.3.6, p. 5-52.	Flood Mitigation
The City shall update master drainage plans and programs that examine quality and quantity of stormwater, and prioritize improvements for the Capital Improvements Plan and Capital Improvements Element.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.2.3.7, p. 5-52.	Flood Mitigation
Consider topographic, hydrologic and vegetative cover factors, and appropriate excavation and filling techniques to reduce erosion in the site plan review process of proposed developments.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Conservation and Coastal Management Element, Policy 5.2.4.1, p. 5-52.	Erosion Mitigation
Proposed plan amendments and requests for new development shall be evaluated according to the following guidelines as to whether the proposed action would: contribute to a condition of public hazard as described in the Infrastructure and Coastal Management Elements.	Port St. Lucie Comprehensive Growth Management Plan, Jan. 1998, Capital Improvements Element, Policy 9.1.3.8, p. 9-13.	Natural and Technological Disaster Mitigation

CFR = Code of Federal Regulations.

DEP = Department of Environmental Protection.

FDEP = Florida Department of Environmental Protection.

IQ = irrigation quality.

LDRs = Land Development Regulations.

NFSLR = North Fork of the St. Lucie River.

PUDs = planned unit developments.

PSLUSD = Port St. Lucie Unified School District.

SARA = Superfund Amendments and Reauthorization Act.

SFWMD = South Florida Water Management District.

SPCC = spill prevention control and countermeasures.

TCRPC = Treasure Coast Regional Planning Council.

Table A.4. Existing hazard mitigation in the St. Lucie Village Comprehensive Growth Management Plan.

Policy/Objective/Project	Source	Notes
The Village shall adopt or amend existing land development regulations to ensure that they contain specific and detailed provisions intended to implement the adopted Comprehensive Plan, and which as a minimum: Regulate areas subject to seasonal and periodic flooding and provide for drainage and stormwater management consistent with the Infrastructure Element; protect potable water wellfields.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Future Land Use Element, Policy 1.1.1.1, p. I-39.	Flood Mitigation, Wellfield Contamination Mitigation
The City shall protect potable water wellfields through participation in and implementation of the St. Lucie County Wellfield Protection Program.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Future Land Use Element, Policy 1.1.2.3, p. I-43.	Wellfield Contamination Mitigation
Proposals for development within the 100-year floodplain as identified by the Federal Emergency Management Agency (FEMA) shall conform with local regulations adopted in accordance with Federal Flood Insurance Regulations, and which are consistent with the Conservation, Coastal Management, Infrastructure elements of this Comprehensive Plan.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Future Land Use Element, Policy 1.1.2.4, p. I-43.	Flood Mitigation
The developer/owner of any site shall be responsible for the management of run-off consistent with the goals, objectives, and policies of the Infrastructure Element of this Comprehensive Plan.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Future Land Use Element, Policy 1.1.2.5, p. I-43.	Flood Mitigation
Mitigate potential impacts of future development and redevelopment activities and coordinate with regional and county hurricane evacuation plans.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Future Land Use Element, Objective 1.1.7, p. I-47.	Hurricane Mitigation

Table A.4. (Continued).

Policy/Objective/Project	Source	Notes
The Village shall locate residential areas and establish densities in coastal areas in a manner consistent with the St. Lucie County Peacetime Emergency Management Plan.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Future Land Use Element, Policy 1.1.7.1, p. I-47.	Natural and Technological Disaster Mitigation
By the year 1995, the Village shall develop, adopt, and implement drainage regulations with specific attention paid to the protection of the Village's natural drainage features.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Infrastructure Element, Objective 4.1.4, p. 4-19.	Flood Mitigation
The Village shall develop, adopt, and implement drainage system design regulations consistent with SFWMD and Department of Environmental Regulation (DER) and those being drafted by St. Lucie County.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Infrastructure Element, Policy 4.1.4.1, p. 4-19.	Flood Mitigation
Issuance of a development order or permit for new development or redevelopment shall be conditioned upon demonstration of compliance with applicable federal, state and local drainage system permit requirements.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Infrastructure Element, Policy 4.1.4.2, p. 4-19.	Flood Mitigation
The Village shall continue its membership and active participation on the drainage advisory committee to draft a county drainage ordinance. The Village shall also place a representative on the county-wide drainage authority at such time that one is created.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Infrastructure Element, Policy 4.1.4.3, p. 4-19.	Flood Mitigation
The Village shall assist the Mosquito Control District with the monitoring, maintenance and improvement of the existing drainage canals.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Infrastructure Element, Objective 4.1.5, p. 4-20.	Epidemic
By the year 1995, the Village shall develop, adopt, and implement regulations for the protection of potable water and groundwater aquifer recharge areas.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Infrastructure Element, Objective 4.1.7, p. 4-20.	Wellfield Contamination Mitigation

Table A.4. (Continued).

Policy/Objective/Project	Source	Notes
The Village, with the assistance of the SFWMD, shall install permanent groundwater quality and depth monitoring stations.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Infrastructure Element, Policy 4.1.7.3, p. 4-21.	Wellfield Contamination Mitigation
The Village shall participate in the county-wide wellfield protection program.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Infrastructure Element, Policy 4.1.7.4, p. 4-21.	Wellfield Contamination Mitigation
By 1995, the Village shall investigate and implement strategies for conserving potable water resources.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Infrastructure Element, Objective 4.1.9, p. 4-21.	Drought Mitigation
In accordance with Section 163.3202, F.S. the Village shall revise land development regulations to include requirements for the use of xeric landscaping in all new development and redevelopment.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Infrastructure Element, Policy 4.1.9.1, p. 4-22.	Drought Mitigation
In accordance with Section 163.3202, F.S., the Village shall revise land development regulations to include requirements for the use of soil water tensiometers, or other similar devices, in all irrigation systems for all new development or redevelopment.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Infrastructure Element, Policy 4.1.9.2, p. 4-22.	Drought Mitigation
By 1993, the Village shall develop an ordinance requiring the use of water-saving plumbing devices in all new development and redevelopment.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Infrastructure Element, Policy 4.1.9.3, p. 4-22.	Drought Mitigation

Table A.4. (Continued).

Policy/Objective/Project	Source	Notes
Ensure the social, economic, and environmental resources of the St. Lucie Village coastal area are maintained or enhanced through the regulation of development activities that would damage or destroy such resources, or threaten human life and cause otherwise unnecessary public expenditures in areas subject to destruction by natural disasters.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Goal 5.1, p. 5-50.	Natural and Technological Disaster Mitigation
All proposed new development and redevelopment activities shall remove nuisance and invasive exotic plant species, particularly Australian Pine, Malaleuca, and Brazilian pepper during construction and measures shall be taken to prevent soil erosion.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.1.7, p. 5-51.	Erosion Mitigation
In accordance with Section 163.3202, F.S., land development regulations shall be adopted which ensure that building and development activities are carried out in a manner which minimizes the danger to life and property from hurricanes and floods and which direct population away from coastal high hazard areas.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Objective 5.1.5, p. 5-56.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
All areas east of the Florida East Coast Railroad (FEC) shall be designated as Coastal High Hazard Areas.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.5.1, p. 5-56.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
Town-funded or supported public facilities shall not be built in the coastal high-hazard area, unless the facility is for public access, resource restoration, or required to ensure the health, safety, and welfare of its residents.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.5.2, p. 5-56.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation

Table A.4. (Continued).

Policy/Objective/Project	Source	Notes
The Village shall participate in and coordinate with surrounding local government plans to provide immediate response to post-hurricane situations.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.5.3, p. 5-57.	Hurricane Mitigation, Post-Disaster Redevelopment
Land use intensities within the coastal area shall be consistent with directing population concentrations away from CHHAs; the hazard mitigation annex of the local peacetime emergency management plan of the Treasure Coast Hurricane Evacuation Study; those which maintain an acceptable time period for emergency evacuation.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.5.4, p. 5-57.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
The Village shall implement county and regional hurricane evacuation plans as they pertain to Village residents in an attempt to maintain evacuation times established by such plans.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Objective 5.1.6, p. 5-57.	Hurricane Mitigation
The Village shall coordinate all hurricane evacuation with the county and adjacent municipalities by implementing the procedures described in county and regional evacuation plans.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.6.1, p. 5-57.	Hurricane Mitigation
The Village shall request all residents to evacuate immediately once an evacuation order is issued.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.6.2, p. 5-57.	Hurricane Mitigation
The Village shall annually notify all residents of hurricane evacuation procedures and shelters for those with special needs such as the handicapped and the infirmed.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.6.3, pp. 5-57, 5-58.	Hurricane Mitigation

Table A.4. (Continued).

Policy/Objective/Project	Source	Notes
The Village shall provide all available information regarding population and development within the town to local and state agencies for the purposes of preparing hurricane evacuation plans.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.6.4, p. 5-58.	Hurricane Mitigation
All hurricane evacuation studies and plans conducted by or for the Village shall be provided to the Treasure Coast Regional Planning Council, the county, and all other municipalities within St. Lucie County for consistency with regional and local plans prior to their adoption and implementation. The Village shall request these agencies to do likewise.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.6.5, p. 5-58.	Hurricane Mitigation
The Village shall provide immediate response to post-hurricane situations through the implementation of post-disaster response and redevelopment plans to be prepared and adopted by October 1, 1994.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Objective 5.1.7, p. 5-58.	Hurricane Mitigation, Post-Disaster Redevelopment
After a hurricane, but before re-entry of the population into evacuated areas, the Village Board of Aldermen shall convene the Recovery Task force, hear preliminary damage assessments and consider a temporary moratorium on building activities not necessary for the public health, safety and welfare.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.7.1, p. 5-58.	Hurricane Mitigation, Post-Disaster Redevelopment

Table A.4. (Continued).

Policy/Objective/Project	Source	Notes
The Recovery Task Force shall review and decide upon emergency building permits, coordinate with state, county, and federal officials to prepare disaster assistance applications, analyze and recommend to the Board of Aldermen hazard mitigation options including reconstruction or relocation of damaged public facilities, develop a redevelopment plan, and recommend amendments to the Comprehensive Plan, Local Peacetime Emergency Management Plan, and other appropriate policies and procedures.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.7.3, pp. 5-58, 5-59.	Hurricane Mitigation, Post-Disaster Redevelopment
If rebuilt, structures which suffer damage in excess of fifty percent of their appraised value shall be rebuilt to meet all current requirements, including those enacted since construction of the structure.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.7.5, p. 5-59.	Hurricane Mitigation, Post-Disaster Redevelopment
Structures which suffer repeated damage to pilings, foundations, or loadbearing walls shall be modified to delete the areas most prone to damage.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.7.6, p. 5-59.	Hurricane Mitigation, Post-Disaster Redevelopment
Repair or reconstruction of seawalls shall utilize the techniques addressed in Policy 5.1.1.7.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.7.7, p. 5-59.	Erosion Mitigation, Post-Disaster Redevelopment
The Recovery Task Force shall inventory all structures which suffer in excess of fifty percent of their assessed value, judge the utility of the land for public access, and make recommendations for acquisitions to the Board of Aldermen.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.7.8, p. 5-59.	Post-Disaster Redevelopment



Table A.4. (Continued).

Policy/Objective/Project	Source	Notes
Public funds shall not be used for infrastructure expansion or improvements in high-hazard coastal areas unless such funds are necessary to provide services to existing development (structures approved for development prior to the implementation of this policy), provide adequate evacuation in the event of an emergency, provide for recreational needs and other appropriate water dependent uses.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Coastal Management Element, Policy 5.1.9.1, p. 5-61.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
Air quality in the Village shall continue to meet or exceed the minimum air quality levels established by DER.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Conservation Element, Objective 6.1.1, p. 6-34.	Air Pollution Mitigation
In accordance with Section 163.3202, F.S., land development regulations shall be adopted which require proposed developments comply with the wellfield protection program adopted by the county.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Conservation Element, Policy 6.1.2.2, pp. 6-34, 6-35.	Wellfield Contamination Mitigation
By 1994, the Village, with the assistance of the SFWMD, shall develop, adopt, and enforce provisions for monitoring and regulating water use in order to prolong freshwater availability.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Conservation Element, Objective 6.1.3, p. 6-35.	Drought Mitigation
The Village shall request in writing a copy of the Model Water Shortage Ordinance prepared by the SFWMD for adaptation and/or adoption.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Conservation Element, Policy 6.1.3.1, p. 6-35.	Drought Mitigation
The Village shall work towards the further education of the public regarding various methods of water conservation at the household and small business level by requesting the FPUA to provide water conservation information with billings for garbage and electrical services.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Conservation Element, Policy 6.1.3.2, p. 6-35.	Drought Mitigation

Table A.4. (Continued).

Policy/Objective/Project	Source	Notes
In accordance with Section 163.3202, F.S., land development regulations shall be adopted for the control of soil erosion.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Conservation Element, Objective 6.1.4, p. 6-36.	Erosion Mitigation
The Village shall utilize the St. Lucie County Soil and Water Conservation District guidelines in the development of regulations for minimizing soil erosion.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Conservation Element, Policy 6.1.4.1, p. 6-36.	Erosion Mitigation
The Village shall continue to conserve and protect its floodplains by maintaining the policy of low density development with strict environmental controls implemented by utilization and enforcement of land development regulations.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Conservation Element, Policy 6.1.5.5, p. 6-37.	Flood Mitigation
The Village shall provide all available population, land use, and waste sanitation data to St. Lucie County or other agencies for use in developing and implementing hazardous waste identification and hazardous work disposal programs.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Conservation Element, Objective 6.1.6, p. 6-38.	Hazardous Materials Disaster Mitigation
The Village shall assist St. Lucie County as requested in implementing programs for the proper storage, collection, recycling and disposal of hazardous waste.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Conservation Element, Policy 6.1.6.2, p. 6-38.	Hazardous Materials Disaster Mitigation
The Town of St. Lucie Village will not expend public funds for infrastructure or service facilities in CHHAs, except to ensure public safety or to acquire or enhance natural resources.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Capital Improvements Element, Objective 9.1.2, p. 9-12.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
The Village shall designate the CHHA as that area east of the FEC Railroad tracks which is within the FEMA Velocity Zones.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Capital Improvements Element, Policy 9.1.2.1, p. 9-13.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation

Table A.4. (Continued).

Policy/Objective/Project	Source	Notes
Pursuant to Section 163.3202, F.S., the Village will adopt land use development regulations which require that all public facilities, except those used for recreation, shall not be located by the Village within the CHHA.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Capital Improvements Element, Policy 9.1.2.2, p. 9-13.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation
Densities within the CHHA shall not exceed 2 units per net acre with minimum lot size of one half acre.	St. Lucie Village Comprehensive Growth Management Plan, Apr. 1990, Capital Improvements Element, Policy 9.1.2.3, p. 9-13.	Erosion Mitigation, Flood Mitigation, Hurricane Mitigation

CHHA = Coastal High Hazard Area.

DER = Department of Environmental Regulation.

FEC = Florida East Coast.

FEMA = Federal Emergency Management Agency.

F.S. = Florida Statute.

SFWMD = South Florida Water Management District.

Table A.5. Existing plans, reports, or studies.

Organization	Title	Date	Hazard Addressed
St. Lucie County Health Department	Pandemic Plan	December 2001	Epidemic
St. Lucie County Health Department	All Hazards Operational Plan	October 2003	All Hazards
St. Lucie County Health Department	Point Distribution Plan	June 2002	Epidemic
St. Lucie County Health Department	Severe Acute Respiratory Syndrome (SARS) Response Plan	April 2003	Epidemic
St. Lucie County Health Department	Emergency Operations Plan	March 2003	All Hazards
St. Lucie County Health Department	Small Pox Response Plan	December 2002	Epidemic
St. Lucie County Health Department	Potassium Iodide Distribution Plan	April 2003	Radiological Accident
Sheriff's Office	Crisis Situations and Response	March 2003	Terrorism, Civil Disturbance
Sheriff's Office	Civil Disturbance/Mass Arrest	November 2001	Civil Disturbance
Sheriff's Office	Emergency Management	May 2002	All Hazards
Sheriff's Office	Response to School Shootings	May 2002	Civil Disturbance
Sheriff's Office	VIP Protection/Special Events	August 2001	Terrorism
Sheriff's Office	Headquarters Evacuation Plan	August 2001	Hurricane, Tornado, Radiological Accident, Terrorism
Sheriff's Office	Bomb Disposal Team	September 2003	Terrorism
Sheriff's Office	Crisis Negotiations Team	September 2003	Terrorism, Civil Disturbance
Sheriff's Office	Search and Rescue Plan	August 2001	All Hazards

Table A.5. (Continued).

Organization	Title	Date	Hazard Addressed
Sheriff's Office	Underwater Search and Rescue Plan	September 2001	All Hazards
Sheriff's Office	Special Operations and Tactics Team	February 2002	Terrorism, Civil Disturbance, Hazardous Materials Accident, Radiological Accident
Sheriff's Office	Emergency Access to Airport Runways and Taxi-Way	August 2001	All Hazards
Sheriff's Office	2003 Emergency Management and Mobilization Plan	May 2003	All Hazards
Sheriff's Office	Infectious Disease Preventive Measures	August 1998	Epidemic
Sheriff's Office	Blood Borne Pathogens Exposure Control Plan	August 1998	Epidemic
Sheriff's Office	Tropical Storms, Hurricanes, Civil Defense	April 2003	Hurricanes, Civil Disturbance
Fort Pierce Utility Authority (FPUA)	FPUA Storm Manual	May 2003	Hurricanes, Flood, Severe Thunderstorm
FPUA	Comprehensive Vulnerability Assessment of Water System for the FPUA		Terrorism
City of Port St. Lucie	City of Port St. Lucie Drainage Basin Studies	2001	Drainage system
City of Port St. Lucie	Utilities Vulnerability Assessments	2002-2003	All-Hazard
City of Port St. Lucie	Continuity of Operations (COOP)	2003	All-Hazard
City of Port St. Lucie	Bridge Inventory and Assessment	2002	All-Hazard
City of Port St. Lucie	Drainage and Water Control Infrastructure	2002	Flood

Table A.5. (Continued).

Organization	Title	Date	Hazard Addressed
	Maintenance Planning		
City of Fort Pierce	City of Ft. Pierce Wellfield Protection Plan	1990	Wellfield Contamination
City of Fort Pierce	Strategic Emergency Management Plan	1997	Hurricane, Flood, and Tornado
St. Lucie County	COOP Plan	2004	All-Hazard
St. Lucie County	Terrorism Annex to COOP Plan	2004	Terrorism
St. Lucie County	Comprehensive Emergency Management Plan – Update	2004	All-Hazard
St. Lucie County	Hazardous Materials Analysis Update	2004	Hazardous Materials, Radiological Accident, Power Failure
St. Lucie County	Nuclear Power Annex	2004	Radiological Accident
St. Lucie County	Emergency Shelter Deficit Report	Annually	All Hazard
St. Lucie County	Hurricane Evacuation Study	2003	Hurricane
St. Lucie County	Stormwater Master Plan	2002	Flooding
St. Lucie County	Utility Master Plan	2000	All Hazard

Table A.6. Existing programs or activities.

Organization	Title	Date	Hazard Addressed
University of Florida – Cooperative Extension	Hurricane Preparedness Handbook	Ongoing	Hurricane
University of Florida – Cooperative Extension	Hurricane Preparedness Public Presentation	Ongoing	Hurricane
University of Florida – Cooperative Extension	Building Contractor Hurricane Construction Standards Education	Ongoing	Hurricane
University of Florida – Cooperative Extension	Insurance Coverage Education	Ongoing	Hurricane
University of Florida – Cooperative Extension	TV/Radio Storm Preparation Programs	Ongoing	Hurricane
University of Florida – Cooperative Extension	Hurricane House Website	Ongoing	Hurricane
University of Florida – Cooperative Extension	Hurricane House Tours/Educational Program	Ongoing	Hurricane
University of Florida – Cooperative Extension	Clean Marina Program	Ongoing	Hurricane
University of Florida – Cooperative Extension	West Nile Virus Protection Community Education	Ongoing	Epidemic
University of Florida – Cooperative Extension	Pesticide and the Environment Courses	Ongoing	Wellfield Protection
University of Florida – Cooperative Extension	Firewise/Fire Hazard Reduction Education	Ongoing	Wildland Fire
University of Florida – Cooperative Extension	Aquatic Plant Management Training	Ongoing	Wellfield Protection
University of Florida – Cooperative Extension	Public Health Pesticide Training	Ongoing	Wellfield Protection
University of Florida – Cooperative Extension	Canker Education	Ongoing	Agricultural Pest and Disease

Table A.6. (Continued).

Organization	Title	Date	Hazard Addressed
University of Florida – Cooperative Extension	Agricultural Insect/Disease Agent Information and Identification	Ongoing	Agricultural Pest and Disease
University of Florida – Cooperative Extension	Water Quality Protection Education	Ongoing	Wellfield Protection
University of Florida – Cooperative Extension	West Nile Virus Vaccination Recommendation Update	July 2003	Epidemic
University of Florida – Cooperative Extension	Best Management Practices Cattle Notebook	January 2003	Wellfield Protection
University of Florida – Cooperative Extension	Hurricane Preparedness for Pets and Livestock	July 2003	Hurricane
St. Lucie County Health Department	Hazardous Materials Spill Drill	June 2003	Hazardous Materials Accident
St. Lucie County Health Department	St. Lucie Medical Center Small Pox Drill	October 2003	Epidemic
St. Lucie County Health Department	Nuclear Drills	Ongoing	Radiological Accident
St. Lucie County Health Department	Hurricane Drills	Ongoing	Hurricane
St. Lucie County Health Department	Operation Vaccination Florida, Phase I, II, III	October 2002 – present	Epidemic
Sheriff's Office	Jail Evacuation Plan	Ongoing	Terrorism
Sheriff's Office	Continuity of Operations Plan	Ongoing	All Hazards
Fort Pierce Utility Authority	Hurricane Awareness Bill Stuffers	Annually – May	Hurricane
City of Port St. Lucie	Hurricane Tabletop Exercise	2002	Hurricane
City of Port St. Lucie	PSLTV 20 Public Service Announcement	2002	Flood
City of Port St. Lucie	PSLTV 20 Loop Presentation	2002	Flood
City of Port St. Lucie	Hurricane Preparation Meeting	2003	Hurricane
City of Port St. Lucie	PSLTV 20 Hurricane Preparedness Public Service Announcements	2003	Hurricane
City of Fort Pierce	Virginia Avenue Outfall Project	1989	Flood



Table A.6. (Continued).

Organization	Title	Date	Hazard Addressed
City of Fort Pierce	Moore's Creek Phase I & II	2003	Flood
St. Lucie County	Hurricane Expo	Annually	Hurricane
St. Lucie County	Nuclear Power Plant Exercise	2004	Hazardous Materials Accident/Radiological Accident
St. Lucie County	Hurricane Exercise	Annually	Hurricane
St. Lucie County	Tornado Drill	Annually	Tornado
St. Lucie County	Hazardous Materials Exercise	2003	Hazardous Materials Accident
St. Lucie County	CRS/ISO Program 5-year Update	2003	Flooding
St. Lucie County	Stormwater System Updates	Annually	Flooding
St. Lucie County	Paradise Park Retrofit	2002 – 2003	Flooding
St. Lucie County	South 7 <sup>th</sup> Street Retrofit	2002 – 2003	Flooding
St. Lucie County	White City Drainage – Property Acquisition	2002 – 2003	Flooding
St. Lucie County	Harmony Heights Drainage Retrofit	2002 – 2003	Flooding
St. Lucie County	Indian River Estates Drainage/Stormwater Retrofit	2002 – 2003	Flooding
St. Lucie County	Hurricane Shutter Retrofit	2003	Hurricane
St. Lucie County	Rouse Road Drainage Retrofit/Improvements	2002	Flooding

CRS = Community Rating System.

ISO = Insurance Services Office.

PSLTV20 = Port St. Lucie Television 20.

Table A.7. Damage reports and data.

Organization	Event	Date	Extent	Damages
Health Department	Hazardous materials spill	September 1999	8,500,000 gallons of sewage spilled into Indian River Lagoon	N/A
Health Department	Anthrax response	October 2001		\$46,481
Health Department	Lykes fertilizer fire	July 2000	Chemical fire at manufacturing plant	N/A
Health Department	Hurricane response	Ongoing	Special medical needs shelter	N/A
Sheriff's Office	Hurricane/Tornado	June 1993	Disaster effecting courthouse	N/A
Sheriff's Office	Hostage situation	May 1999	Hostage situation at courthouse	N/A
Sheriff's Office	Bomb threat	December 2001	Bomb threat at courthouse	N/A
Sheriff's Office	Fire	December 2001	Fire effecting courthouse	N/A
Fort Pierce Utility Authority	Hurricane Irene	October 1999	Severe erosion of 12-inch water main on South AIA	\$327,303
Fort Pierce Utility Authority	Hurricane Irene	October 1999	Failure of 36-inch sewer line at wastewater treatment plant	\$1,005,699
St. Lucie Village	Hurricane Irene	October 1999	St. Lucie Village Riverfront Monument damaged	\$1,200
City of Port St. Lucie	Wildland fire	1999	42 homes destroyed, 30 damaged	\$950,000 (Federal Disaster Declaration)
City of Port St. Lucie	Hurricane Floyd	1999	Special needs shelter activated	\$100,000 (Federal Disaster Declaration)
City of Port St. Lucie	Hurricane Irene	1999	City-wide flooding	\$100,000 (Federal Disaster Declaration)

**APPENDIX B**  
**MITIGATION OPTIONS**

Table B.1. Potential hazard mitigation measures.

<p>Potential mitigation initiatives are presented by hazard type. Specific references are given by number for each mitigation initiative listed. <b>Table B.2</b> presents an annotated bibliography of data sources for all mitigation initiatives in the previous sections. This bibliography identifies, describes, and where possible, cross references data sources with funding sources for the proposed mitigation measures.</p> <p>Natural Hazards</p> <p><i>Hurricane.</i></p> <ul style="list-style-type: none"> <li>• Encourage neighborhood preservation/revitalization for flood and wind damage retrofitting (50)</li> <li>• Provide information to contractors and homeowners on the risks of building in hazard-prone areas (50)</li> <li>• Develop a list of techniques for homeowner self-inspection and implementation of mitigation activities (50)</li> <li>• Implement dune restoration programs (50)</li> <li>• Acquire shorefront land for open space (50)</li> <li>• Develop a beach management plan (30)</li> <li>• Assess the need for beach nourishment projects (30)</li> <li>• Develop maintenance program to clear debris from bridges (30)</li> <li>• Develop a drainage system management and maintenance program (30)</li> <li>• Develop a floodplain management plan (30)</li> <li>• Construct shelters in mobile home parks (30)</li> <li>• Require that new development be oriented to convey wind and water (30)</li> <li>• Identify vulnerable properties for relocation programs (30)</li> <li>• Encourage the construction of safe rooms in new construction (30)</li> <li>• Require tie-downs for propane tanks and mobile homes (30)</li> <li>• Install resilient street signs for navigation (30)</li> <li>• Develop a comprehensive sheltering system with funding provided for the acquisition and construction of shelters (50)</li> <li>• Identify “refuges of last resort” for those unable to reach shelters (50)</li> <li>• Implement a Tree Hazard Management Program to encourage responsible planting practices and minimize future storm damage to buildings, utilities, and streets (2)</li> <li>• Encourage building inspection by a hazard mitigation professional (2,15)</li> <li>• Practice a tree trimming maintenance program (50)</li> <li>• Re-landscape with native species (50)</li> <li>• Distribute hurricane preparedness information including pet sheltering plans (9)</li> <li>• Encourage the purchase of flood insurance (9)</li> <li>• Enforce building codes (29)</li> <li>• Award insurance premium credits (29)</li> <li>• Retrofit:             <ul style="list-style-type: none"> <li>– Wet floodproofing (allowing water to enter uninhabited areas of the house) (35)</li> <li>– Dry floodproofing (sealing the structure to prevent floodwaters from entering) (35)</li> <li>– Install backflow valves on sewer systems (50)</li> <li>– Venting on roofs (3)</li> <li>– Garage doors with stiffer horizontal members (3, 24)</li> <li>– Glider tracks and track supports should be strengthened (3, 24)</li> <li>– In-place shutters (3, 9, 15, 24)</li> <li>– Hurricane straps and hurricane clips (15)</li> </ul> </li> </ul>
--

Table B.1. (Continued).

<ul style="list-style-type: none"> <li>– Reinforcement of concrete block wall; concrete tie-columns at all corners (3)</li> <li>– Bracing with struts or pilaster columns in walls perpendicular to freestanding walls (3)</li> <li>– Elevation of structures by piers, posts, and columns, and pilings (3)</li> <li>– Adequate connection or anchoring of each element to the adjacent element (3)</li> <li>– Add shutters for glazed openings (3, 24)</li> <li>– Renail sheathing (3)</li> <li>– Create a secondary water barrier (35)</li> <li>– Provide support for sliding glass doors and double doors opening to the outside (3, 24)</li> <li>– Improve anchorage of windows to openings (3)</li> <li>– Add ridge ventilators to reduce uplift of wood sheathing (3)</li> <li>– Strengthen garage doors and particularly double-wide garage doors (3, 24)</li> <li>– Anchor adjacent structures, including privacy fences, pool enclosures, and patio roofs (3)</li> <li>– Improve connections of porch roofs and overhangs (3)</li> <li>– Reinforce entry doors (3, 34)</li> <li>• Modify building codes: <ul style="list-style-type: none"> <li>– Hip roofs instead of gable (3, 24, 34)</li> <li>– Metal panels that simulate tile instead of tile roofs (3)</li> <li>– Consistent mortar pad placement (3)</li> <li>– Full 10-inch mason's trowel of mortar on tile roofs (3)</li> <li>– 4 to 6 inch nail spacing on sheathing panel (3, 34)</li> <li>– Venting on roofs (3, 34)</li> <li>– Garage doors with stiffer horizontal members (3, 34)</li> <li>– Multiple panel sliding glass doors and windows should be avoided (3)</li> <li>– Individual panel width should be no more than 3 feet (3)</li> <li>– Total window and door openings should be no more than 31% of a wall's total area (3)</li> <li>– Shatter-resistant transparent material (3, 34)</li> <li>– Improved adherence to adequate attachment procedures (3)</li> <li>– Hurricane straps and hurricane clips (3, 34)</li> <li>– Reinforcement of concrete block walls; concrete tie-columns at all corners (3)</li> <li>– Bracing with struts or pilaster columns in walls perpendicular to freestanding walls (3)</li> <li>– Walls sufficiently anchored in the foundation or story below (3)</li> <li>– Adequate connection or anchoring of each element to the adjacent element (3)</li> <li>– Require hurricane shelters on multi-unit housing (50)</li> <li>– Construction products examined by independent laboratories under the guidance of the county compliance office (34)</li> <li>– Contractors must install high-quality shutters or strong "impact" glass, like that found in car windshields in each new single family home (34)</li> </ul> </li> </ul>
<p><i>Flood.</i></p> <ul style="list-style-type: none"> <li>• Acquire floodprone homes (30)</li> <li>• Maintenance program to clear debris from bridges (30)</li> <li>• Develop a floodplain management plan (30)</li> </ul>

Table B.1. (Continued).

<ul style="list-style-type: none"> <li>• Encourage the use of roadside grassy swales (30)</li> <li>• Limit impervious surfaces by encouraging the use of porous pavement (30)</li> <li>• Require new development to be oriented to convey floodwaters (30)</li> <li>• Include retention ponds in new developments (30)</li> <li>• Require setback from waterways for new construction or major renovation (30)</li> <li>• Require tie-downs for propane tanks and mobile homes (30)</li> <li>• Encourage neighborhood preservation/revitalization for floodproofing techniques (50)</li> <li>• Elevate structures above the 100-year flood level (35, 50)</li> <li>• Maintenance program to clear debris from stormwater drainage areas (50)</li> <li>• Provide information to contractors and homeowners on the risks of building in hazard-prone areas and mitigation (50)</li> <li>• Provide the public with Federal Emergency Management Agency (FEMA) floodplain maps (50)</li> <li>• Develop a list of techniques for homeowner self-inspection and implementation of mitigation activities (50)</li> <li>• Install backflow valves in sewer systems (50)</li> <li>• Incorporate a "hazard disclosure" requirement for deed transfers, leases, or other contracts for sale or exchange of property in flood hazard areas (50)</li> <li>• Improve storm drainage areas (50)</li> <li>• Develop sediment control to prevent clogged drainage systems such as street sweeping, curb and gutter cleaning, paving dirt roads, and planting vegetation on bare ground (1, 40, 45)</li> <li>• Investigate the use of flood prone areas as open space (29, 40, 42, 46, 47, 50)</li> <li>• Retrofit critical facilities (50)</li> <li>• Purchase flood insurance (7, 15)</li> <li>• Know evacuation routes (7)</li> <li>• After a flood, inspect foundations of buildings for cracks and other damage (7)</li> <li>• Make sure buildings are not in danger of collapsing after a flood (7)</li> <li>• Encourage building inspection by a hazard mitigation professional (2, 15)</li> <li>• Regulate development in the floodplain (40, 46)</li> <li>• Enforce building codes (29)</li> <li>• Insurance premium credits (29)</li> <li>• Retrofit: <ul style="list-style-type: none"> <li>– Elevate the lowest floor above the 100-year flood level (35)</li> <li>– Wet floodproofing (allowing water to enter uninhabited areas of the structure) (35)</li> <li>– Dry floodproofing (sealing the structure to prevent flood waters from entering) (35)</li> <li>– Levees and floodwalls (constructing a barrier around the structure to keep out flood waters) (35)</li> <li>– Demolition (tearing down the structure and rebuilding with appropriate floodproof techniques or relocating the structure) (7)</li> <li>– Elevate the main breaker or fuse box (15)</li> </ul> </li> </ul> <p><i>Severe Thunderstorms and Lightning.</i></p> <ul style="list-style-type: none"> <li>• Clear dead or rotting trees and branches (12)</li> <li>• Public information on when to turn off gas, electricity, and water; how to develop an emergency communication plan; and actions to take during a severe thunderstorm such as avoiding bathtubs, water faucets, and sinks (12)</li> <li>• Develop a stormwater drainage management and maintenance plan (31)</li> <li>• Construct shelters in mobile home parks (31)</li> </ul>
---

Table B.1. (Continued).

<ul style="list-style-type: none"> <li>• Secure outdoor objects that could become projectiles (12)</li> <li>• Install lightning rods (12)</li> <li>• Encourage purchase of flood insurance (12)</li> </ul> <p><i>Wildland Fire.</i></p> <ul style="list-style-type: none"> <li>• Acquire land susceptible to fire for conversion to open space (44, 48, 50)</li> <li>• BEHAVE (Fire Behavior Prediction and Fuel Modeling System) (32)</li> <li>• METAFIRE (National information system that transmits daily severity index values for every climate division in the country) (32)</li> <li>• Create fire breaks (30)</li> <li>• Conduct prescribed burns to limit fuel load (30)</li> <li>• Require larger sideyards to allow access to backyards (30)</li> <li>• Encourage landscaping with fire-resistant or slow burning vegetation (30)</li> <li>• Move shrubs and other landscaping away from the sides of the structure (16)</li> <li>• Clean brush and dead grass from the property (13, 16)</li> <li>• Public information on safe fire practices (build away from nearby trees or bushes, fire extinguisher availability) (13, 30)</li> <li>• Building code modification             <ul style="list-style-type: none"> <li>– Fire-resistant materials when renovating, building, and retrofitting (13, 30)</li> <li>– Create a safety zone between the structure and combustible plants and vegetation (stone walls, swimming pools) (13)</li> <li>– Install power lines underground (13)</li> <li>– Install tile, fire-retardant shingles, asphalt, fiberglass, concrete tile, or metal on the roof (4, 13, 16)</li> <li>– Plant trees in clusters so that there are gaps in the tree branch canopies overhead (4)</li> <li>– Use alternatives to wood and other combustible materials such as brick, stone, or metal when building walls (4)</li> <li>– Adequate water supply (30)</li> <li>– Access for fire trucks (a turnaround) (30)</li> </ul> </li> <li>• Prescribed burns (21, 22, 23, 43)</li> <li>• Keep trees trimmed so there is no contact with power lines or other wires (16)</li> <li>• Cut back tree limbs that overhang the structure (4)</li> <li>• Remove combustible debris from around the structure (4)</li> <li>• Adopt the wildland/urban interface building code (30)</li> <li>• Development of ongoing fire safety education programs (21)</li> <li>• Identification of businesses located within rural areas that contain flammable substances (21)</li> <li>• Enhancement of intergovernmental relationships and coordinated action (21)</li> <li>• Development of a local component of the Wildfire Response Plan (21)</li> <li>• Formation of volunteer rural fire protection districts (21)</li> <li>• Firesafe considerations for site improvement and building construction that may include, but may not be limited to, the following (21):             <ul style="list-style-type: none"> <li>– Assure that all water mains within the development be of proper size, looped or griddled with no dead-end, or low flow areas</li> <li>– Avoid dead-ended cul-de-sacs</li> <li>– Assure hydrants at cul-de-sacs to be on a loop or griddled to eliminate loss of water flow due to high usage of the system during wildland fires</li> </ul> </li> </ul>
--

Table B.1. (Continued).

- Design swimming pools so that fire trucks can reach them for pumping water on fires
- Develop written provisions that afford access to subdivision water systems for firefighting services
- Assure the provision of alternative access roads
- Identify and provide proper signage for access points where fire trucks can drive within 16 feet of creeks, rivers, lakes, or ponds to fill pumpers
- Provide underground wiring for electric power supply
- Assure a minimum 30-foot non-combustible areas around housing units
- Provide a firebreak around all structures and around subdivision
- Include firesafe construction performance standards such as the use of fire-resistant materials for roofs and building exteriors

*Tornadoes.*

- Telephone warning system (31)
- Community warning sirens (31)
- Construct shelters in mobile home parks (31)
- Require tie-downs for propane tanks and mobile homes (31)
- Install resilient street signs for navigation (31)
- National Oceanic and Atmospheric Administration (NOAA) weather radio tone alerts (31)
- Underground shelter actions to be taken during hurricanes and tornadoes need better distinction, especially among elderly residents (31)
- Retrofit structures to include reinforced “safe room” (14)
- Modify building codes:
  - Include an interior reinforced “safe room” in all new structures (14)
  - Shingles around the edges of the roof should be set into a special mastic (28)
  - Roof sheathing: the plywood or particle board should be nailed securely to the rafters; nails should be 6 inches on center at the edges, and 12 inches on center elsewhere (28)

*Extreme Temperatures.*

- Install window air conditioners snugly (6)
- Install temporary reflectors, such as aluminum foil covered cardboard to reflect any heat back outside (6)
- Consider keeping storm shutters up all year (6)
- Conserve electricity (6)
- Public information on heat-related disease prevention (drink plenty of water, avoid strenuous outdoor activities) (6)

*Soil/Beach Erosion.*

- Sand management (38)
- Relocation of threatened facilities (38)
- Threatened real estate may be set aside as open space (38)
- Vegetation replenishment program (36, 38)
- Develop a beach management plan (30)
- Require dune protection and shoreline setbacks for new construction and major renovations (30)



Table B.1. (Continued).

- Cooperative approach (vs. individual i.e., one property will have a seawall, another a groin, etc.) (37)

*Agricultural Pest and Disease.*

- Prompt removal of citrus trees infected by citrus canker (18)
- Prompt removal of tomato plants infected with tomato yellow leaf curl virus (19)
- Eliminate breeding spots of insects (33)
- Patch screens and other places where pests enter greenhouses (33)

*Drought.*

- Create cooperative Federal/non-Federal drought contingency plans for rapid implementation during water shortages (27)
- Develop an early warning system (27)
- Evaluate the current use of ground water (27, 46)
- Establish new data collection networks (27)
- Study public willingness to pay more for more reliable water supplies (27)
- Study effectiveness of conservation measures (27, 46)
- Monitor vulnerable public water supplies (27)
- Pass legislation to protect and manage ground water (27)
- Provide funds for water recycling projects (27)
- Organize drought information meetings for the public and media (27)
- Implement water conservation awareness programs (27)
- Assist water agencies in developing contingency plans (27)
- Establish stronger economic incentives for private investment in water conservation (27)
- Implement water metering and leak detection programs (27)
- Adopt an emergency water allocation strategy to be implemented during severe drought (27)
- Evaluate worst-case drought scenarios for possible further actions (27)

*Seismic Hazards.*

- No mitigation activities have been listed as this is not a significant hazard to Martin County

*Epidemic.*

- Anthrax vaccine is available (17)
- Rodent control (25)
- Mosquito control (25)
- Regular maintenance of cooling and plumbing systems (25)
- Wellfield protection and water purification maintenance (25)
- Adequate sanitation control measures (25)
- Proper food processing (25)
- Regulate widespread use of antibiotics (25)

Table B.1. (Continued).

<p>Technological Hazards</p> <p><i>Nuclear Disaster.</i></p> <ul style="list-style-type: none"> <li>• Prepare a community accident response plan (10)</li> <li>• Install community sirens (10)</li> <li>• Install a telephone warning system (10)</li> <li>• Distribute tone alert radios (10)</li> <li>• Conduct public information meetings (10)</li> <li>• Disseminate emergency information throughout the community (in-place sheltering) (10)</li> </ul> <p><i>Power Failure.</i></p> <ul style="list-style-type: none"> <li>• Voluntary conservation public information (bill inserts) (22)</li> <li>• Electrical Emergency Contingency Plan (22)</li> </ul> <p><i>Hazardous Materials Accident.</i></p> <ul style="list-style-type: none"> <li>• Public information on detecting a spill/release (8)</li> <li>• Public information on response/evacuation plans (8)</li> <li>• Install a telephone warning system (8)</li> <li>• Install community sirens (8)</li> <li>• Retrofit seal gaps and air-conditioning systems (8)</li> </ul> <p><i>Transportation System Accident.</i></p> <ul style="list-style-type: none"> <li>• Develop accident contingency plans (49)</li> <li>• Response training (49)</li> </ul> <p><i>Wellfield Contamination.</i></p> <ul style="list-style-type: none"> <li>• Have water tested by EPA (26)</li> <li>• Maintain isolation distances from potential contamination sources (26)</li> <li>• Inventory potential sources of contamination (26)</li> <li>• Develop water supply contingency strategy (5)</li> <li>• Reward landowners who do not conduct activities that could contaminate the water supply by easing their taxes (5)</li> <li>• Investigate growth management programs to ensure that wellfield protection programs are in place before development occurs (5)</li> </ul> <p><i>Communications Failure.</i></p> <ul style="list-style-type: none"> <li>• No mitigation activities have been listed as this is not a significant hazard to Martin County</li> </ul> <p>Societal Hazards</p> <p><i>Terrorism and Sabotage.</i></p> <ul style="list-style-type: none"> <li>• Encourage public education programs on terrorism including information on potential targets, visible targets, etc. (11)</li> <li>• Drills for people who work in large buildings including knowing where fire exits are located, keeping fire extinguishers in working order, learning first aid (11)</li> <li>• Develop a bomb threat plan (11)</li> </ul>
---

Table B.1. (Continued).

<ul style="list-style-type: none"> <li>• Develop an explosion plan for building (cover nose and mouth with a wet cloth, stay below smoke, exit building as quickly as possible, tap on a pipe if trapped so rescuers know where to look) (11)</li> </ul> <p><i>Civil Disturbance.</i></p> <ul style="list-style-type: none"> <li>• No mitigation activities have been listed as this is not a significant hazard to Martin County</li> </ul> <p><i>Immigration Crisis.</i></p> <ul style="list-style-type: none"> <li>• No mitigation activities have been listed as this is not a significant hazard to Martin County</li> </ul> <p>All Hazards</p> <ul style="list-style-type: none"> <li>• Map vulnerable areas and distribute information about the hazard mitigation strategy and projects (50)</li> <li>• Provide information to contractors and homeowners on the risks of building in hazard-prone areas (50)</li> <li>• Develop a list of techniques for homeowner self-inspection and implementation of mitigation activities (50)</li> <li>• Organize and conduct professional training opportunities regarding natural hazards and hazard mitigation (50)</li> <li>• Distribute NOAA weather radios (school superintendents, etc.) (50)</li> <li>• Sound land use planning based on known hazards (50)</li> <li>• Enforcing effective building codes and local ordinances (30, 50)</li> <li>• Increasing public awareness of community hazards (50)</li> <li>• Provide sites that are as free as possible from risk to natural hazards for commercial and industrial activities (30, 50)</li> <li>• Consider conservation of open space by acquisition of repetitive loss structures (30, 50)</li> <li>• Ensure a balance among residential growth and conservation of environmental resources through a detailed analysis of the risks and vulnerability to natural hazards (30,50)</li> <li>• Joint planning and sharing of resources across regions, communities, and states (30, 50)</li> <li>• Establish a hazard mitigation council (50)</li> <li>• For future proposed development design guidelines, incorporate hazard mitigation provisions, including improved maps (30, 50)</li> <li>• Add a “safe room” requirement for all new buildings (15, 24)</li> <li>• Establish incentives to encourage business owners and homeowners to retrofit buildings with hazard-resistant features (29)</li> <li>• Teach disaster and hazard awareness in schools (29)</li> </ul>
---

Table B.2. Annotated bibliography for mitigation measure data sources.

#	Reference	Description	Funding Source
1	St. John's River Water Management District. "The Indian River Lagoon's problems are as common as dirt." Indian River Lagoon Update. Winter 1998.	Describes the detrimental effects that uncontrolled sediment can have on local waterways and drainage areas; also presents potential mitigation projects to control sediment.	
2	Alachua County Office of Emergency Management. "Hazard mitigation page." <a href="http://www.co.alachua.fl.us/~acem/mitigati.htm">http://www.co.alachua.fl.us/~acem/mitigati.htm</a> (26 Jun 1998)	Defines mitigation and provides examples of community-wide and individual mitigation practices.	Florida Department of Community Affairs, Florida Department of Environmental Protection, Florida Department of Health, Florida Department of Agriculture, Federal Emergency Management Agency (FEMA), U.S. Department of Energy, U.S. Department of Housing and Urban Development.
3	Ayscue, J. Natural Hazards Research Center. Hurricane damage to residential structures: risk and mitigation. (Nov 1996) <a href="http://www.colorado.edu/hazards/wp/wp94/wp94.html#intro">http://www.colorado.edu/hazards/wp/wp94/wp94.html#intro</a>	Describes potential hurricane hazards from wind and water; discusses building techniques that can mitigate hurricane damage.	
4	Boulder County. "Wildfire hazard identification and mitigation system for Boulder County, Colorado." <a href="http://www.boco.gov/gislu/whims.html">http://www.boco.gov/gislu/whims.html</a> (25 Jan 1999)	Contains a summary of the Wildfire Hazard Identification and Mitigation System project, detailed maps from the project, and mitigation suggestions to protect structures from wildfire.	Multiple local, State, and Federal government inter-agencies.
5	Browning, C. "Community wellhead protection programs." <a href="http://hermes.ecn.purdue.edu/water_quality/documents/oef-890.ok.ascii">http://hermes.ecn.purdue.edu/water_quality/documents/oef-890.ok.ascii</a> (13 Nov 1998)	Describes each element of a community wellfield protection program.	
6	Federal Emergency Management Agency. "Fact sheet: extreme heat." (15 Jan 1998) <a href="http://www.fema.gov/library/heatf.htm">http://www.fema.gov/library/heatf.htm</a> (2 Dec 1998)	Mitigation measures related to extreme heat; most are individual actions.	
7	Federal Emergency Management Agency. "Fact sheet: floods and flash floods." (13 Jan 1998) <a href="http://www.fema.gov/library/floodf.htm">http://www.fema.gov/library/floodf.htm</a> (2 Dec 1998)	Describes activities that may prevent a flood emergency, reduce the chance of a flood emergency happening, or lessen the effects of unavoidable emergencies. Activities are categorized as before, during, and after a flood event.	

Table B.2. (Continued).

#	Reference	Description	Funding Source
8	Federal Emergency Management Agency. "Fact sheet: hazardous materials accidents." (10 Jan 1998) <a href="http://www.fema.gov/library/hazmatf.htm">http://www.fema.gov/library/hazmatf.htm</a> (2 Dec 1998)	Contains information on preparing for and detecting a hazardous material accident.	
9	Federal Emergency Management Agency. "Fact sheet: hurricanes." (14 Jan 1998) <a href="http://www.fema.gov/library/hurricaf.htm">http://www.fema.gov/library/hurricaf.htm</a> (2 Dec 1998)	Describes measures to be taken before, during, and after a hurricane to prevent loss of life and property.	
10	Federal Emergency Management Agency. "Fact sheet: nuclear power plant emergency." (27 Feb 1997) <a href="http://www.fema.gov/library/radiolo.htm">http://www.fema.gov/library/radiolo.htm</a> (2 Dec 1998)	Explains the nature of a nuclear disaster and describes related mitigation measures.	
11	Federal Emergency Management Agency. "Fact sheet: terrorism." (10 Jan 1998) <a href="http://www.fema.gov/library/terrorf.htm">http://www.fema.gov/library/terrorf.htm</a> (2 Dec 1998)	Mitigation measures related to various terrorist attacks.	
12	Federal Emergency Management Agency. "Fact sheet: thunderstorms and lightning." (30 Jan 1998) <a href="http://www.fema.gov/library/thunderf.htm">http://www.fema.gov/library/thunderf.htm</a> (2 Dec 1998)	Contains mitigation measures relating to thunderstorms and lightning.	
13	Federal Emergency Management Agency. "Fact sheet: wildland fires." (10 Jan 1998) <a href="http://www.fema.gov/library/wildlanf.htm">http://www.fema.gov/library/wildlanf.htm</a> (2 Dec 1998)	Mitigation practices for before, during, and after a wildland fire event.	
14	Federal Emergency Management Agency. "Taking shelter from the storm: building a safe room in your house." <a href="http://www.fema.gov/mit/tsfs01.htm">http://www.fema.gov/mit/tsfs01.htm</a> (25 Nov 1998)	Contains two sections: one is a description of hazards that may threaten a structure, and the second is how to plan and construct a "safe room."	
15	Federal Emergency Management Agency. "What can homeowners do to reduce their risk from disasters?" (24 Aug 1996) <a href="http://www.fema.gov/mit/lowcost.htm">http://www.fema.gov/mit/lowcost.htm</a>	Low-cost mitigation measures related to floods, seismic events, wind events, and wildfire.	
16	Federal Emergency Management Agency. "Wildfire - wildland/urban interface." (17 Oct 1996) <a href="http://www.fema.gov/mit/wfmit.htm">http://www.fema.gov/mit/wfmit.htm</a> (30 Oct 1998)	Examples of how to create a "Safety Zone" around a home or business.	
17	Findlay, S. USA Today. "Clinton sees little anthrax threat to civilians." (17 Dec 1997) <a href="http://home.eznet.net/~kenberry/materials/usatodayarticle.htm">http://home.eznet.net/~kenberry/materials/usatodayarticle.htm</a> (12 Aug 1998)	Article found on the internet states that an anthrax vaccine is available.	

Table B.2. (Continued).

#	Reference	Description	Funding Source
18	Florida Department of Agriculture and Consumer Services. "Citrus canker - the threat to Florida agriculture - Frequently Asked Questions." <a href="http://doacs.state.fl.us/canker/faqs.htm">http://doacs.state.fl.us/canker/faqs.htm</a> (4 Nov 1998)	Identifies citrus canker and the procedure to eradicate the disease.	
19	Florida Department of Agriculture and Consumer Services. "The latest on Tomato Yellow Leaf Curl Virus." (26 Aug 1997) <a href="http://www.ifas.ufl.edu/~entweb/updatetyl.htm">http://www.ifas.ufl.edu/~entweb/updatetyl.htm</a> (3 Nov 1998)	Describes symptoms of Tomato Yellow Leaf Curl Virus and methods of eradication.	
20	Florida Department of Emergency Management. "Review of efforts to optimize management and production of timber on State lands and review of the prescribed burning policy of the Division of Forestry." (Oct 1998) <a href="http://www.state.fl.us/comaff/DEM/gwfrmc/gwrmrc.htm">http://www.state.fl.us/comaff/DEM/gwfrmc/gwrmrc.htm</a> (21 Dec 1998)	Reviews the benefits and drawbacks of prescribed burning.	Federal Rural Community Fire Protection Program
21	Florida Department of Community Affairs, Bureau of Recovery and Mitigation. Wildfire Mitigation Suggestions. Retrieved 10 October 1998 from the World Wide Web: <a href="http://www.dca.state.fl.us/brm/">http://www.dca.state.fl.us/brm/</a>	Wildfire Mitigation Suggestions (website no longer active).	
22	Florida Reliability Coordinating Council. "Generating Capacity Shortage Plan." <a href="http://www.frcc.com/capacityemergencyplan.htm#gca">http://www.frcc.com/capacityemergencyplan.htm#gca</a>	Plan for when generating capacity is tight, also suggestions for voluntary conservation.	
23	Hickenlooper, B. "Fire damaged lands begin to heal." Stream Lines. Winter 1998, p.4	Prescribed burning is used to control wildfire outbreaks on St. Johns River Water Management District land, and this article describes its many benefits.	
24	Manatee County Emergency Management. "Hazard mitigation." <a href="http://www.co.manatee.fl.us/em_html/haz_mit.htm">http://www.co.manatee.fl.us/em_html/haz_mit.htm</a> (20 Nov 1998)	Hurricane mitigation suggestions.	
25	McNeill, W. "Emerging infectious diseases plan." (1976) <a href="http://www.cdc.gov/ncidod/publications/eid_plan/summary.htm">http://www.cdc.gov/ncidod/publications/eid_plan/summary.htm</a> (11 Nov 1998)	Centers for Disease Control and Prevention Strategic Plan emphasizing surveillance, applied research, and prevention activities to maintain a strong defense against infectious diseases.	

Table B.2. (Continued).

#	Reference	Description	Funding Source
26	Minnesota Dept. of Health. "Wellhead protection for Minnesota." (23 Sep 1998) <a href="http://www.health.state.mn.us/divs/eh/whp_mn2.html">http://www.health.state.mn.us/divs/eh/whp_mn2.html</a> (13 Nov 1998)	Wellfield protection plans.	
27	National Drought Mitigation Center. "Drought mitigation tools for states." (15 Nov 1995) <a href="http://enso.unl.edu/ndmc/mitigate/policy/tools.htm">http://enso.unl.edu/ndmc/mitigate/policy/tools.htm</a>	Drought mitigation tools for governments based on two surveys of states.	
28	National Science Foundation. "Tornadoes - protecting your home from the mighty twister." <a href="http://whyfiles.news.wisc.edu/013tornado/strong_house.html">http://whyfiles.news.wisc.edu/013tornado/strong_house.html</a> (4 Feb 1999)	Suggestions for protecting your home against a tornado.	
29	Nelson. L. 1997. Emergency management - a legislator's guide. National Conference of State Legislatures, Denver, CO. 47 pp.	Explains how Illinois, Missouri, and Iowa purchased lands from homeowners whose homes were repetitive damage structures; describes how building code enforcement prevented damage from wildfires, floods, and earthquakes; explains how insurance premium credits work; mentions the development of a wildland/urban interface building code, etc.	FEMA, Community Development Block Grant, State government, State government competitive grant money from the Emergency Management and Assistance Trust Fund.
30	North Carolina Division of Emergency Management. "Tools and Techniques: An Encyclopedia of Strategies to Mitigate the Impacts of Natural Hazards." (23 Dec. 2003) <a href="http://www.ncem.org/mitigation/Library/Encyclopedia2.pdf">http://www.ncem.org/mitigation/Library/Encyclopedia2.pdf</a>	Comprehensive source of mitigation actions for all hazards.	
31	Schmidlin, T., et al. Natural Hazards Research Center. "Risk factors for death in the 22-23 February 1998 Florida tornadoes." (1998) <a href="http://www.colorado.edu/hazards/qr/qr106/qr106.html">http://www.colorado.edu/hazards/qr/qr106/qr106.html</a> (7 Aug 1998)	Draws conclusions toward tornado mitigation from surveys, interviews, and damage reports from the 22-23 February 1998 Florida tornadoes.	
32	Subcommittee on Natural Disaster Reduction. "Agency success stories in natural disaster reduction." (18 Oct 1995) <a href="http://www.usgs.gov/sndr/success.html">http://www.usgs.gov/sndr/success.html</a> (30 Dec 1998)	Briefly describes the BEHAVE and METAFIRE prediction/modeling systems.	
33	The National Food Safety Database. "Controlling insects." (June 1993) <a href="http://www.foodsafety.org/dh/dho45.htm">http://www.foodsafety.org/dh/dho45.htm</a> (14 Dec 1998)	Suggestions for insect control, and insect control after a natural disaster.	

Table B.2. (Continued).

#	Reference	Description	Funding Source
34	Tibbetts, J. Sea Grant Haznet. "Racing to catch up: south Florida's hurricane threat and building codes." (6 Aug 1998) <a href="http://www.haznet.org/text/sflhurricane.html">http://www.haznet.org/text/sflhurricane.html</a> (9 Nov 1998)	Reveals the changes made in south Florida's building codes since Hurricane Andrew.	
35	United States Army Corps of Engineers. "Local floodproofing programs." June 1994, 28 pp.	Provides examples and photographs of projects financed by local governments and also identifies lessons learned that can help communities interested in financing floodproofing projects.	
36	United States Army Corps of Engineers. "New planting." <a href="http://superior.lre.usace.army.mil/shore.protection/nwplntng.html">http://superior.lre.usace.army.mil/shore.protection/nwplntng.html</a> (4 Nov 1998)	Explains how vegetation can be used as an erosion control device.	
37	United States Army Corps of Engineers. "Planning considerations." <a href="http://superior.lre.usace.army.mil/shore.protection/plncns.html">http://superior.lre.usace.army.mil/shore.protection/plncns.html</a> (4 Nov 1998)	Cooperative measures against beach erosion are detailed.	
38	United States Army Corps of Engineers. "Solutions to coastal erosion." <a href="http://www.rain.org/~pjenkin/point/growing/solution.html">http://www.rain.org/~pjenkin/point/growing/solution.html</a> (4 Nov 1998)	Examples of general solutions, hard solutions, soft solutions, and retreat as coastal erosion mitigation.	
39	United States Department of Agriculture. "USDA conservation programs - conservation plant material." <a href="http://www.nrcs.usda.gov/NRCSProg.html">http://www.nrcs.usda.gov/NRCSProg.html</a> (2 Feb 1999)	Explains the Conservation Plant Material Center Program's purpose as providing native plants that can help solve natural resource problems such as erosion.	Conservation Plant Materials Center Program
40	United States Department of Agriculture. "USDA conservation programs - resource conservation and development program (RC&D)." <a href="http://www.nrcs.usda.gov/NRCSProg.html">http://www.nrcs.usda.gov/NRCSProg.html</a> (2 Feb 1999)	Describes the RC&D Program.	Resource Conservation and Development Program
41	United States Department of Agriculture. "USDA conservation programs - conservation reserve program." <a href="http://www.nrcs.usda.gov/NRCSProg.html">http://www.nrcs.usda.gov/NRCSProg.html</a> (2 Feb 1999)	The Conservation Reserve Program encourages farmers to convert highly erodible land to vegetative cover.	Conservation Reserve Program
42	United States Department of Agriculture. "USDA conservation programs - flood risk reduction program." <a href="http://www.nrcs.usda.gov/NRCSProg.html">http://www.nrcs.usda.gov/NRCSProg.html</a> (2 Feb 1999)	Describes the Flood Risk Reduction program, who is eligible, and what the requirements of the program are.	Flood Risk Reduction Program



Table B.2. (Continued).

#	Reference	Description	Funding Source
43	United States Department of Agriculture. "USDA conservation programs - forestry incentives program." <a href="http://www.nrcs.usda.gov/NRCSProg.html">http://www.nrcs.usda.gov/NRCSProg.html</a> (2 Feb 1999)	Explains the Forestry Incentives Program. It supports good forest management practices on privately owned non-industrial forest lands nationwide.	Forestry Incentives Program
44	United States Department of Agriculture. "USDA conservation programs - stewardship incentives program." <a href="http://www.nrcs.usda.gov/NRCSProg.html">http://www.nrcs.usda.gov/NRCSProg.html</a> (2 Feb 1999)	Qualifications to participate in the program and benefits provided.	Stewardship Incentives Program
45	United States Department of Agriculture. "USDA conservation programs - watershed and river basin planning and installation Public Law 83-566 (PL566)." (26 Oct 1998) <a href="http://www.ftw.nrcs.usda.gov/pl566/WHIP.html">http://www.ftw.nrcs.usda.gov/pl566/WHIP.html</a> (2 Feb 1999)	Lists the purposes of watershed projects and describes the program.	Watershed and River Basin Planning and Installation Public Law 83-566.
46	United States Department of Agriculture. "USDA conservation programs - watershed surveys and planning." <a href="http://www.nrcs.usda.gov/NRCSProg.html">http://www.nrcs.usda.gov/NRCSProg.html</a> (2 Feb 1999)	Overview of the Watershed Surveys and Planning Program.	Watershed Surveys and Planning Program.
47	United States Department of Agriculture. "USDA conservation programs - wetlands reserve program." <a href="http://www.nrcs.usda.gov/NRCSProg.html">http://www.nrcs.usda.gov/NRCSProg.html</a> (2 Feb 1999)	Overview of this voluntary program to restore wetlands.	Wetlands Reserve Program
48	United States Department of Agriculture. "USDA conservation programs - wildlife habitat incentives program (WHIP)." (8 Oct 1997) <a href="http://www.ftw.nrcs.usda.gov/pl566/WHIP.html">http://www.ftw.nrcs.usda.gov/pl566/WHIP.html</a> (2 Feb 1999)	Description of the WHIP program, benefits, and requirements.	Wildlife Habitat Incentives Program
49	United States Environmental Protection Agency. "Preparing for spills." (7 Oct 1998) <a href="http://www.epa.gov/oilspill/prepare.htm">http://www.epa.gov/oilspill/prepare.htm</a> (3 Nov 1998)	U.S. Environmental Protection Agency oil spill preparedness program highlights.	
50	Watson, L. et al. 1998. Strategy for reducing risks from natural hazards in Pawtucket, Rhode Island: A multi-hazard mitigation strategy. Rhode Island Sea Grant. Narragansett, RI. 44 pp.	Section 1 explains why communities are writing hazard mitigation strategies and describes the hazard assessment that was completed by city officials. Section 2 uses the risk assessment from Section 1 to determine potential mitigation actions for high risk areas.	

**APPENDIX C**  
**FUNDING SOURCES**

Table C.1. Description of potential funding sources.

Funding Source	Objective	Eligibility	Sponsoring Organization
Anheuser-Busch Companies, Inc.	Supports charitable organizations active in the fields of education, health care, programs for minorities and youth, cultural enrichment, and environmental protection.	Support is restricted almost entirely to cities where the company has manufacturing facilities.	Anheuser-Busch Companies, Inc. One Busch Place St. Louis, MO 63118 (314) 577-2000
Antiterrorism and Emergency Assistance Program	To provide assistance programs for victims of mass violence and terrorism occurring within and outside the United States, and a compensation program for victims of international terrorism.	Public and private nonprofit victim assistance agencies.	Department of Justice Office for Victims of Crimes www.usdoj.gov
Assistance to Firefighter Grants	To provide direct assistance, on a competitive basis, to fire departments of a State or tribal nation for the purpose of protecting the health and safety of the public and firefighting personnel against fire and fire-related hazards.	Eligible applicants for this grant program are limited to fire departments located in the fifty United States, tribal nations, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands.	Department of Homeland Security 245 Murray Drive S.W. Washington, DC 20528 (202) 282-8000 http://www.dhs.gov
Bioterrorism Training and Curriculum Development Grant	To equip a workforce of healthcare professionals to address emergency preparedness and response issues. The goals of this program are the development of a healthcare workforce that possesses the knowledge, skills, and abilities to 1) recognize indications of a terrorist event in their patients; 2) treat their patients and their communities in a safe and appropriate manner; 3) participate in a coordinated, multidisciplinary response to terrorist events; and 4) rapidly and effectively alert the public health system of such an event at the community, State, and national level. Effective responses to public health emergencies require close collaboration between all types of health professionals involved in patient care including healthcare providers, medical specialists, the public health infrastructure, and all participants in the emergency response. To achieve such a collaborative environment, it will be necessary to implement new models of undergraduate/graduate curricula and continuing education and training for health professionals that broaden public health knowledge and ensure that essential multidisciplinary and interdisciplinary collaborative responses to emergencies will occur. Bioterrorism Training	<p>Applicant Eligibility: Continuing Education and Curriculum Development: Entities eligible to apply for this program are public or private nonprofit accredited or licensed health professions schools, multi-State or multi-institutional consortia of such schools, and other appropriate educational entities such as professional organizations and societies, and other nonprofit institutions or entities including faith-based organizations and community-based organizations.</p> <p>Beneficiary Eligibility: The public or private nonprofit accredited or licensed health professions schools, multi-State or multi-institutions or entities including faith-based organizations and community-based organizations.</p>	<p>The Bioterrorism Training and Curriculum Development Program is administered by Lynn Rothberg Wegman Division of State, Community and Public Health Bureau of Health Professions Health Resources and Services Administration (HRSA) Room 9-105 Parklawn Building, 5600 Fishers Lane Rockville, Maryland 20857 (301) 443-1648</p> <p>Grants Management Contact: Director, Division of Grants Management Operations HRSA 5600 Fishers Lane, Room 11-03 Rockville, Maryland 20857</p>

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
	and Curriculum Development Program will consist of two discrete foci of activity: 1) Provision of Continuing Education for Practicing Providers, and 2) Curricular Development in Health Professions Schools. Each of the categories above must have a distinct and separate application.		
Capitalization Grants for Drinking Water State Revolving Fund (Drinking Water State Revolving Fund)	State may use Federal funds to establish new programs that emphasize preventing contamination problems through source water protection and enhanced water systems management.	States and Puerto Rico are eligible to receive capitalization grants.	James Bounne, Implementation and Assistance Division, Office of Groundwater and Drinking Water, U.S. Environmental Protection Agency, Washington, DC 20460 (202) 260-5526
Challenge 21, Floodplain	To protect floodplains.		Department of Defense U.S. Army Corps of Engineers Attn: CECW-PM DoD Washington, DC 20314-1000 (202) 272-0169 <a href="http://www.usace.army.mil/">http://www.usace.army.mil/</a>
Citizen Corps	To support the formation of State and local Citizen Corps Councils to help drive local citizen participation by coordinating Citizen Corps programs, developing community action plans, assessing possible threats, and identifying local resources to make communities safer, stronger, and better prepared to respond to the threats, of terrorism, crime, public health issues, and disasters of all kinds.	States with a pass through to local governments.	Department of Homeland Security Emergency Preparedness and Response Directorate <a href="http://www.citizencorps.gov">www.citizencorps.gov</a>
Clean Water Act Section 319 Grants	Grants to States to implement non-point source programs, including support for non-structural watershed resource restoration activities.		Non-point Source Management Program 2600 Blair Stone Road Mail Station 3570 Tallahassee, FL 32399-2400 (850) 245-7508
Clean Water State Revolving Funds	Loans at actual or below-market interest rates to help build, repair, relocate, or replace wastewater treatment plants.		Environmental Protection Agency Office of Water State Revolving Fund Branch Branch Chief (202) 260-7359 A list of Regional Offices is available upon request

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Coastal Construction Building Zone Program	This program establishes a standard to improve the resistance to hurricane-force winds of buildings in Florida's coastal building zone. Staff trains building officials, monitors local progress in adopting ordinances, and provides technical assistance.	Compliance program only.	Rick Dixon (850) 487-1824
Coastal Partnerships Initiative Grant	To provide financial assistance for projects in specific initiative categories. The categories are: Remarkable Coastal Places, Community Stewardship, Access to Coastal Resources, and Working Waterfronts. Financial awards are limited to no more than \$50,000 and no less than \$15,000 and may be used for planning and coordination activities, land acquisition, small construction, or capital improvement projects.	Local governments of the 35 coastal counties and all municipalities within their boundaries designated as "coastal" by the state land planning agency or required to include a coastal element in the local comprehensive plan; national estuarine research reserves; and national estuary programs. Public and private colleges and universities, regional planning councils, and non-profit groups, as long as an eligible local government, national estuarine research reserve, or national estuary program agrees to participate as a partner. Partnerships between regional and local agencies and non-profit organizations are encouraged.	Debbie Skelton Florida Coastal Management Program 3900 Commonwealth Boulevard, MS 47 Tallahassee, FL 32399-3000 (850) 245-2161 Fax: (850) 245-2191 E-mail: debbie.skelton@dep.state.fl.us
Coastal Services Center	To support projects aimed at developing a science-based, multi-dimensional approach that will allow for the maintenance or improvement of environmental quality, while at the same time, allowing for economic growth. In Fiscal Year (FY) 96, five Fellowship Awards were made to the states of CA, CT, FL, MA, and OR. In FY 98, a cooperative agreement was awarded for an ecological and socioeconomic characterization of Kachemak Bay, AK. Uses will be in the following Center areas: Coastal Management Service: Training and Communications: training materials development and dissemination of information; and Coastal Information Services: Coastal Change Analysis Program: To develop land cover and change analysis products.	State and local governments, public nonprofit institution/organization, other public institution/organization.	Dr. Nancy Foster, Ph.D., Assistant Administrator, National Ocean Service 1305 East-West Highway Silver Spring, MD 20910 (301) 713-3074

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Coastal Wetlands Planning, Protection and Restoration Act	To grant funds to coastal states to carry out coastal wetlands conservation projects.	Available to all states bordering on the Atlantic, Gulf (except Louisiana), and Pacific coasts, and states bordering the Great Lakes.	Department of the Interior Fish and Wildlife Service 4401 N. Fairfax Dr., Rm. 140 Arlington, VA 22203 (703) 358-2156 <a href="http://www.fws.gov">http://www.fws.gov</a>
Coastal Zone Management Program	Grants for planning and implementation of non-structural coastal flood and hurricane hazard mitigation projects and coastal wetlands restoration.		Department of Commerce National Oceanic and Atmospheric Administration National Ocean Service Office of Ocean and Coastal Resource Management Chief, Coastal Programs Division: (301) 713-3102
Community Development Block Grant (CDBG)	Provide for long-term needs, such as acquisition, rehabilitation, or reconstruction of damaged properties and facilities and redevelopment of disaster-affected areas. Funds also may be used for emergency response activities, such as debris clearance and demolition, and extraordinary increases in the level of necessary public services.	State governments that have elected to administer CDBG funds for non-entitlement communities. States with designated major disaster areas may receive statutory and regulatory waivers of program requirements regarding the use of regular CDBG funds, which recipients designate to address the damage.	Department of Housing and Urban Development Community Planning and Development 451 7 <sup>th</sup> Street, S.W. Washington, DC 204107 (202) 708-3587 <a href="http://www.hud.gov">http://www.hud.gov</a>
Community Emergency Response Teams	To train people in neighborhoods, the workplace, and schools in basic disaster response skills, such as fire suppression, urban search and rescue, and medical operations, and help them take a more active role in emergency preparedness.	States with pass through to local jurisdictions.	Department of Homeland Security Emergency Preparedness and Response Directorate <a href="http://www.fema.gov">www.fema.gov</a>
The Community Foundation for Palm Beach and Martin Counties	To provide innovative responses to recognized community needs, which do not unnecessarily duplicate other efforts; strive to equip people to help themselves; significantly strengthen the capacity of existing institutions to reach a broader segment of the community; emphasize shared values and collective interests and action among divergency groups that have little or no history of working together; programs that are neighborhood driven.	Unrestricted grants are made for charitable purposes primarily to organizations serving Palm Beach and Martin counties. Applicants must be exempt from income taxes under Section 501(c)(3).	The Community Foundation for Palm Beach and Martin Counties 324 Datura St., Suite 340 West Palm Beach, FL 33401 Palm Beach: (561) 659-6800 Martin: (888) 832-6542 e-mail: <a href="mailto:cfpbmc@aol.com">cfpbmc@aol.com</a>

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Community Rating System	Encourages State and community flood loss reduction activities beyond those required for participation in the National Flood Insurance Program. Flood insurance premiums are lower in those communities that undertake activities to reduce flood losses, facilitate accurate insurance rating, promote the awareness of flood insurance, and protect the natural and beneficial functions of flood hazard areas.		FEMA Region IV CRS Program 3003 Chamblee-Tucker Rd. Atlanta, GA 30431 (770) 220-5200
Community Services Block Grant	To provide services and activities having measurable and potential major impact on causes of poverty in the community.		Department of Health and Human Services, Administration for Children and Families Office of Community Services 370 L'Enfant Promenade, SW Washington, DC 220447 (202) 401-9340 <a href="http://www.acf.dhhs.gov/programs/ocs">http://www.acf.dhhs.gov/programs/ocs</a>
Conservation Reserve Program	The Conservation Reserve Program reduces soil erosion, protects the Nation's ability to produce food and fiber, reduces sedimentation in streams and lakes, improves water quality, establishes wildlife habitat, and enhances forest and wetland resources. It encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as tame or native grasses, wildlife plantings, trees, filter strips, or riparian buffers. Farmers receive an annual rental payment for the term of the multi-year contract. Cost sharing is provided to establish the vegetative cover practices.		Contact U.S. Department of Agriculture (USDA), Farm Service Agency <a href="http://mimosa.itc.nrcs.usda.gov/scripts/ndi_sapi.dll/oip_public/USA_map">http://mimosa.itc.nrcs.usda.gov/scripts/ndi_sapi.dll/oip_public/USA_map</a> for a USDA service center in your area. WPB: West Palm Beach Service Center 559 N. Military Tr. West Palm Beach, FL 33415
Conservation Plant Material Centers	The purpose of the program is to provide native plants that can help solve natural resource problems. Beneficial uses for which plant material may be developed include biomass production, carbon sequestration, erosion reduction, wetland restoration, water quality improvement, streambank and riparian area protection, coastal dune stabilization, and other special conservation treatment needs.		Contact USDA, Natural Resources Conservation Service <a href="http://mimosa.itc.nrcs.usda.gov/scripts/ndi_sapi.dll/oip_public/USA_map">http://mimosa.itc.nrcs.usda.gov/scripts/ndi_sapi.dll/oip_public/USA_map</a> for a USDA service center in your area. WPB: West Palm Beach Service Center 559 N. Military Tr. West Palm Beach, FL 33415

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Conservation Technical Assistance	The purpose of this program is to assist land-users, communities, units of State and local government, and other Federal agencies in planning and implementing conservation systems. The purpose of the conservation systems are to reduce erosion, improve soil and water quality, improve and conserve wetlands, enhance fish and wildlife habitat, improve air quality, improve pasture and range condition, reduce upstream flooding, and improve woodlands.	Individual land users, communities, conservation districts, and other units of State and local government and Federal agencies to meet their goals for resource stewardship and help individuals to comply with State and local requirements.	Contact USDA, Natural Resources Conservation Service <a href="http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map">http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map</a> for a USDA service center in your area. WPB: West Palm Beach Service Center 559 N. Military Tr. West Palm Beach, FL 33415
Cooperative Extension Service	To provide information and educational material to farmers, ranchers, and others on what they can do to protect themselves and their property against the hazards associated with disasters; and advice on cleanup of damaged property, sanitation precautions, insect control, food preparation in an emergency, recovery actions on damaged farms, and renovation of damaged equipment and property.	Farmers and rural residents who have suffered losses as the result of natural disasters. There is also assistance available to producers who suffer losses as a result of crop or livestock disease or pest infestation.	Contact USDA, Natural Resources Conservation Service <a href="http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map">http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map</a> for a USDA service center in your area. WPB: West Palm Beach Service Center 559 N. Military Tr. West Palm Beach, FL 33415
Community of Oriented Police Services (COPS) Interoperable Communications Technology Program	To facilitate communications interoperability public safety responders at the State and local level.	Tribal, State, and local law enforcement agencies.	Department of Justice Office of COPS <a href="http://www.cops.usdoj.gov">www.cops.usdoj.gov</a>
Cora Brown Fund	To use funds made possible by a bequest of funds from the late Cora C. Brown of Kansas City, Missouri, who left a portion of her estate to the United States for the purpose of helping victims of natural disasters not caused by or attributed to war.	Individuals, families, and groups in need of 1) disaster-related home repair and rebuilding; 2) disaster-related unmet needs; and 3) other services that alleviate human suffering and promote the well being of disaster victims.	Department of Homeland Security 245 Murray Drive SW Washington, DC 20528 (202) 282-8000 <a href="http://www.dhs.gov">http://www.dhs.gov</a>



Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Decision, Risk, and Management Science Program	Funding for research and related educational activities on risk, perception, communication, and management (primarily technological hazards).		National Science Foundation – Directorate for Social, Behavioral and Economic Science, Division of Social Behavioral and Economic Research, Decision, Risk, and Management Science Program (703) 306-1757 <a href="http://www.nsf.gov/sbe/drms/start.htm">www.nsf.gov/sbe/drms/start.htm</a>
Disaster Mitigation Planning and Technical Assistance	Technical and planning assistance grants for capacity building and mitigation project activities focusing on creating disaster-resistant jobs and workplaces.		Department of Commerce, Economic Development Administration (EDA): (800) 345-1222 EDA's Disaster Recovery Coordinator: (202) 482-6225 <a href="http://www.doc.gov/eda">www.doc.gov/eda</a>
Disaster Recovery Initiative (DRI) Grants	Provides flexible grants to help cities, counties, and states recover from Presidentially-declared disasters, especially in low-income areas. Grantees may use DRI funds for recovery efforts involving housing, economic development, infrastructure, and prevention of further damage. Examples include buying damaged properties in a flood plain and relocating them to safer areas; relocation payments for people and businesses displaced by the disaster; debris removal; rehabilitation of homes and buildings damaged by the disaster; buying, constructing, or rehabilitating public buildings; and code enforcement.	States and local governments in places that have been designated by the President of the United States as disaster areas.	For a guide to DRI, contact Community Connections at (800) 998-9999

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Disaster Reserve Assistance	To provide emergency assistance to eligible livestock owners, in a state, county, or area approved by the secretary or designee, where because of disease, insect infestation, flood, drought, fire, hurricane, earthquake, hail storm, hot weather, cold weather, freeze, snow, ice, and winterkill, or other natural disaster, a livestock emergency has been determined to exist.	Basic program eligibility requirements include 1) For the Disaster Reserve Assistance Program, crop losses in areas that have suffered a 40 percent or greater loss of normal grazing, and feed grain and forage production, and determined to be in a livestock feed emergency due to a natural disaster; 2) for the Emergency Feed Grain Donation Program: a) the State committee must determine and document a livestock feed emergency on a county-by-county basis, when the danger of eligible livestock perishing as a result of snow and freezing conditions exists in the county; b) the livestock owner, or other person or entities (public or private) certify that the eligible livestock were or are in danger of perishing without immediate assistance; and 3) the Foundation Livestock Relief (Cost-Share) Program: a) when foundation livestock are stranded and in imminent danger of perishing; and b) when the State committee determines and documents livestock losses due to severe weather conditions.	Department of Agriculture, Farm Service Agency, Emergency and Noninsured Assistance Program Division, STOP 0526 1400 Independence Avenue SW Washington, DC 20250-0526 (202) 720-3168 <a href="http://www.fsa.usda.gov">http://www.fsa.usda.gov</a>
Domestic Anti-Terrorism Technology Development Program	To support the development of counter terrorism technologies, assist in the development of standards for those technologies, and work with State and local jurisdictions to identify particular areas vulnerable to terrorist acts and be better prepared to respond if such acts occur.	States and local governments, non-profit and for-profit organizations, and universities.	Department of Justice National Institutes of Justice <a href="http://www.usdoj.gov">www.usdoj.gov</a>
Economic Development: Public Works Impact Program	To promote long-term economic development and assist in providing immediate useful work to unemployed and underemployed persons in highly distressed areas. Examples of funded projects: 1) renovation of buildings, including historic preservation; 2) repairing industrial streets and roads; construction of water/sewer systems.	Eligibility is based on designation of a community or neighborhood as a redevelopment area.	David L. McIlwain, Director, Public Works Division, Economic Development Administration Room H7326, Herbert C. Hoover Bldg. Washington, DC 20230 (202) 482-5265

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Economic Development - Technical Assistance	To promote economic development and alleviate underemployment and unemployment in distressed areas, Economic Development Administration operates a technical assistance program. The program provides funds to: 1) enlist the resources of designated university centers in promoting economic development; 2) support innovative economic development projects; 3) disseminate information and studies of economic development issues of national significance; and 4) finance feasibility studies and other projects leading to local economic development.	Most technical assistance recipients are private or public non-profit organizations, educational institutions, municipal, county, or State governments.	Department of Commerce Research and National Technical Assistance Division, Economic Development Administration Rm. H7315 Herbert C. Hoover Bldg. Washington, DC 20230 (202) 482-4085 <a href="http://www.doc.gov/eda">http://www.doc.gov/eda</a>
Emergency Advance Measures for Flood Prevention (Public Law 84-99 Code 500 Program)	To perform activities prior to flooding that would assist in protecting against loss of life and damages to property due to flooding. Examples of funded projects: emergency drawdown of Spirit Lake, Washington; emergency levee construction, Utah Lake, Provo, Utah; Temporary levee raising, Cowlitz River, Washington; and levee setback, Red River, Louisiana. Authorized assistance includes work such as removal of waterway obstructions, work necessary to prevent dam failure, and work necessary to prepare for abnormal snowmelt. There must be an immediate threat of unusual flooding present before advance measures can be considered. Any work performed under this program will be temporary in nature and must have a favorable benefit cost ratio.	The Governor of the affected state must request assistance. All persons living in areas subject to floods.	U.S. Army Corps of Engineers, Attn: CECW-OE, Washington, DC 20314 (202) 272-0251
Emergency Community Water Assistance Grants.	Through the Emergency Community Water Assistance Grant Program, the Rural Utilities Service is authorized to help rural residents who have experienced a significant decline in quantity or quality of water to obtain adequate quantities of water that meet the standards of the Safe Drinking Water Act.	Rural Utilities Service may make grants to public bodies, private nonprofit corporations, and political subdivisions of a state, as well as Indian tribes.	Assistant Administrator, Water and Environmental Programs, Rural Utilities Service, Department of Agriculture, Washington, DC 20250 (202) 690-2670

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Emergency Conservation Program	To enable farmers to perform emergency conservation measures to control wind erosion on farmlands, to rehabilitate farmlands damaged by wind erosion, floods, hurricanes, or other natural disasters and to carry out emergency water conservation or water enhancing measures during periods of severe drought.	Any agricultural producer who as owner, landlord, tenant, or sharecropper on a farm or ranch, including associated groups, and bears a part of the cost of an approved conservation practice in a disaster area, is eligible to apply for cost-share conservation assistance. This program is also available in Guam, Commonwealth of the Northern Mariana Islands, Puerto Rico, and the Virgin Islands.	USDA/Farm Service Agency (FSA)/Conservation Environmental Programs Division (CEPD), Stop 0513, 1400 Independence Ave. SW Washington, DC 20250-0513 (202) 720-6221 <a href="http://www.fsa.usda.gov">http://www.fsa.usda.gov</a>
Emergency Loans	To assist established (owner or tenant) family farmers, ranchers, and aquaculture operators with loans to cover losses resulting from major and/or natural disasters, which can be used for annual farm operating expenses, and for other essential needs necessary to return disaster victim's farming operations to a financially sound basis in order that they will be able to return to private sources of credit as soon as possible. Loan funds may be used to repair, restore, or replace damaged or destroyed farm property and supplies that were lost or damaged as a direct result of a natural disaster.	Must meet requirements.	Department of Agriculture, Farm Service Agency, Director, Loan Making Division, Ag Box 0522 Washington, DC 20250 (202) 720-1632
Emergency Management Performance Grants	To provide basic assistance to sustain the nation's emergency management system, build State and local emergency management capability, and serve as the foundation for first responder activities.	States with pass through to local emergency management organizations.	Department of Homeland Security Emergency Preparedness and Response Directorate <a href="http://www.fema.gov">www.fema.gov</a>
Emergency Management Preparedness and Assistance Trust Fund:  Emergency Management Competitive Grants  Municipal Competitive Grant Program	Competitive: Provides competitive grants to State or regional agencies, local governments, and private non-profit organizations to implement projects that will further State and local emergency management objectives.  Municipal: Provides competitive grants to municipalities that are legally constituted, have an authorized, established, and maintained emergency management program, and have signed the current Statewide Mutual Aid Agreement (SMAA) and supplied all required information and documentation such that the SMAA is ready to be signed by the Division as of the date of the application deadline.		Department of Community Affairs 2555 Shumard Oak Blvd Tallahassee, FL 32399-2100 (850) 488-8466 Fax: (850) 921-0781 <a href="http://www.dca.state.fl.us/cps/grants.htm">http://www.dca.state.fl.us/cps/grants.htm</a>

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Emergency Management Institute Training Assistance	To defray travel and per diem expenses of State, local, and tribal emergency management personnel who attend training courses conducted by the Emergency Management Institute, at the Emmitsburg, Maryland facility, Bluemont, Virginia facility, and selected off-site locations. Its purpose is to improve emergency management practices among State, local, and tribal government managers, in response to emergencies and disasters. Program embodies the Comprehensive Emergency Management System by unifying the elements of management common to all emergencies: planning, preparedness, mitigation, response, and recovery.	State, local, and tribal emergency managers.	Department of Homeland Security Emergency Preparedness and Response Directorate <a href="http://www.fema.gov">www.fema.gov</a>
Emergency Operations Centers	The purpose of the Emergency Operations Centers program is to supplement and assist State and local efforts to improve their capabilities to respond to emergencies or disasters including any that may be caused by terrorist attacks using conventional means or Weapons of Mass Destruction. The program provides grants to the States to encourage the development of Emergency Operations Centers that provide flexibility, sustainability, security, survivability, and interoperability. Fully capable emergency operations facilities at the State and local levels are an essential element of a comprehensive national emergency management system and are necessary to ensure continuity of operations and continuity of government in major disasters caused by any hazard.	States are eligible to apply for the assistance under this program. For purposes of this program and consistent with the Stafford Act, 42 U.S.C. 5122(4), "State" means any State of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands. Local governments may receive assistance as subgrantees to the States in which they are located. The term "local government" as used in this program has the meaning set forth in the Stafford Act, 42 U.S.C. 5122(6).	Gil Jamieson, Federal Emergency Management Agency, Office of National Preparedness 500 C Street, SW Washington, DC 20472 (202) 646-4090 e-mail: <a href="mailto:gil.jamieson@fema.gov">gil.jamieson@fema.gov</a> Fax: (202) 646-4053 24-hour per day FEMA Telephone Operator Service is available at (202) 566-1600 <a href="http://www.fema.gov">http://www.fema.gov</a>
Emergency Operations Flood Response and Post Flood Response (Public Law 84-99 Code 200 Program)	To provide emergency flood response and post flood response assistance as required to supplement State and local efforts and capabilities in time of flood or coastal storm. Emergency assistance is provided in all phases of flood response and post flood response to supplement State and local efforts.	State or local public agencies for flood response and the State for post flood response.	Commander, U.S. Army Corps of Engineers, Attn: CECW-OE Washington DC 20314-1000 (202) 272-0251

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Emergency Rehabilitation of Flood Control Works or Federally Authorized Coastal Protection Works (Public Law 84-99, Code 300 Program)	To assist in the repair and restoration of flood control works damaged by flood, or federally authorized hurricane flood and shore protection works damaged by extraordinary wind, wave, or water action. Authorized assistance includes emergency repair or rehabilitation of flood control works damaged by flood, and restoration of federally authorized coastal protection structures damaged by extraordinary wind, wave, or water action.	Owners of damaged flood protective works, or State and local officials of public entities responsible for their maintenance, repair, and operation must meet current guidelines to become eligible for Public Law 84-99 assistance.	Commander, U.S. Army Corps of Engineers, Attn: CECW-OE Washington DC 20314 (202) 272-0251
Emergency Relief Program	To assist State transportation agencies in the planning and development of an integrated, interconnected transportation system important to interstate commerce and travel by constructing and rehabilitating the National Highway System, including the Interstate System; and for transportation improvements to all public roads except those classified as local or rural minor collectors; to provide aid for the repair of Federal-aid roads following disasters; to foster safe highway design; to replace or rehabilitate deficient or obsolete bridges; and to provide for other special purposes.		Department of Transportation Federal Highway Administration Director, Office of Engineering Federal Highway Administration 400 7 <sup>th</sup> St. SW Washington, DC 20590 (202) 366B4853 <a href="http://www.fhwa.dot.gov/">http://www.fhwa.dot.gov/</a>
Emergency Shelter Grants (ESG) Program	The program is designed to help improve the quality of emergency shelters and transitional housing for the homeless, to make available additional shelters, to meet the costs of operating shelters, to provide essential social services to homeless individuals, and to help prevent homelessness.	States, metropolitan cities, urban counties, and territories. Local governments and non-profit organizations may apply for ESG funds directly from states. The territories receive their allocations based on their population size.	Community Planning and Development, Department of Housing and Urban Development Office of Special Needs Assistance Programs 451 7 <sup>th</sup> St. SW, Rm. 7254 Washington, DC 20410 (202) 708-4300
Emergency Watershed Protection Program	Provides technical and financial assistance for relief from imminent hazards in small watersheds, and to reduce vulnerability of life and property in small watershed areas damaged by severe natural hazard events.		USDA – NRCS National Office: (202) 690-0848 Watersheds and Wetlands Division: (202) 720-3042
Emergency Medical Services for Children	To support demonstration projects for the expansion and improvement of emergency medical services for children who need treatment for trauma or critical care. It is expected that maximum distribution of projects among the States will be made and that priority will be given to projects targeted towards populations with special needs, including Native Americans, minorities, and the disabled.	State governments and schools of medicine.	Department of Health and Human Services Health Resources and Services Administration <a href="http://www.hrsa.gov">www.hrsa.gov</a>

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Environmental Quality Incentives Program (EQIP)	Technical, educational, and limited financial assistance to encourage environmental enhancement.		USDA-Natural Resource Conservation Service (NRCS) NRCS County Offices or NRCS EQUIP Program Manager: (202) 720-1834 <a href="http://www.nrcs.usda.gov">www.nrcs.usda.gov</a>
Federal Land Transfer/Federal Land to Parks Program	Identifies, assesses, and transfers available Federal real property for acquisition for State and local parks and recreation, such as open space.		DOI-National Park Service (NPS) General Services Administration Offices Fort Worth, TX: (817) 334-2331 Boston, MA: (617) 835-5700 or Federal Lands to Parks Leader NPS National Office: (202) 565-1184
Financial Assistance for Ocean Resources Conservation and Assessment Program	To determine the long-term consequences of human activities that affect the coastal and marine environment; to assess the consequences of these activities in terms of ecological, economic, and social impacts upon human, physical, and biotic environments, and to define and evaluate management alternatives that minimize adverse consequences of human use of the coastal and marine environments and resources.	Universities, colleges, technical schools, institutes, laboratories, State and local government agencies, public or private or profit or non-profit entities or individuals.	Department of Commerce Office of Ocean Resources Conservation and Assessment, National Ocean Service, National Oceanic and Atmospheric Administration 1305 East-West Hwy Silver Springs, MD 20910 (301) 713-2989 <a href="http://www.noaa.gov">http://www.noaa.gov</a>
Fire Management Assistance Grant – FEMA Readiness, Response and Recovery (RRR)	Grants to states, tribal governments, and local governments for the mitigation, management, and control of any fire burning on publicly (non-Federal) or privately owned forest or grassland that threatens such destruction as would constitute a major disaster.	State governments and Indian tribal governments are eligible for fire management assistance grants. The State or Native American tribal government may be the Grantee. The Grantee is the government to which a grant is awarded and is accountable for the use of funds provided.	FEMA, RRR, Region IV
Flood Control Projects (Small Flood Control Projects)	To reduce flood damages through projects not specifically authorized by Congress. Corps of Engineers designs and constructs the projects. Provides a cash contribution for land enhancement benefits and for project costs assigned to project features other than flood control; prevent future encroachment, which might interfere with proper functioning of the project for flood control; and, maintain the project after completion.	States, political subdivisions of states, or other responsible local agencies established under State law with full authority and ability to undertake necessary legal and financial responsibility.	U.S. Army Corps of Engineers Attn: CECW-PM Washington, DC 20314-1000 (202) 272-1975

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Flood Insurance	To enable persons to purchase insurance against physical damage to or loss of buildings and/or contents therein caused by floods, mudslide, or flood-related erosion, thereby reducing Federal disaster assistance payments, and to promote wise floodplain management practices in the Nation's flood-prone and mudflow-prone areas.	Any state of political subdivision with authority to adopt floodplain management practices. Beneficiaries may include residents, businesses, and property owners in applicant community, in which like states can ensure municipal structures.	Federal Emergency Management Agency Federal Insurance Administration Washington, DC 20472 (202) 646-2781 <a href="http://www.fema.gov/nfip">http://www.fema.gov/nfip</a>
Flood Mitigation Assistance (FMA) Program Planning Grants	To assist states and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the National Flood Insurance Program (NFIP). Examples of funded projects are published in a Biennial Report to Congress as required under Section 554 of the National Flood Insurance Reform Act (NFIRA). This report is available from Mr. Robert F. Shea, Jr., Program Support Division, Federal Emergency Management Agency (FEMA). Planning Grants may be used to assist states and communities in developing and updating Flood Mitigation Plans. Eligible activities under this grant are conducting local planning discussions, contracting for consulting technical services such as engineering and planning, surveying structures at risk, and assessing structures subject to repetitive flood loss. Eligible activities under this grant are the acquisition, relocation, elevation, or dry-floodproofing of insured structures, minor structural projects, and beach nourishment activities.	Eligible applicants of Technical Assistance Grants are State agencies or departments that are responsible for administering the FMA program. Eligible applicants for Planning Grants are states and communities participating in the NFIP.	Mr. Robert F. Shea, Jr. Program Support Division Federal Emergency Management Agency 500 C Street, SW Washington, DC 20472 (202) 646-3619



Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Flood Plain Management Services	To promote appropriate recognition of flood hazards in land and water use planning and development through the provision of flood and flood plain related data, technical services, and guidance. Available information identifies areas subject to flooding and flood losses from streams, lakes, and oceans and describes flood hazard at proposed building sites. It can be used as a basis for planning flood plain use, for flood emergency preparedness planning, for hurricane evacuation and preparedness planning, for assistance in developing flood plain regulations, for setting elevations for flood proofing, and implementing flood proofing measures, and for indicating areas to be acquired for open space. Services are available to states and local governments without charge, but within annual funding limitations, on request.	States, political subdivisions of States, other non-Federal public organizations and the public.	U.S. Army Corps of Engineers Attn: CECW-PF Washington, DC 20314-1000 (202) 761-0169
Flood Risk Reduction Program	The Flood Risk Reduction Program was established to allow farmers who voluntarily enter into contracts to receive payments on lands with high flood potential. In return, participants agree to forego certain USDA program benefits. These contract payments provide incentives to move farming operations from frequently flooded land.		Contact USDA, Farm Service Agency <a href="http://mimosas.itc.nrcs.usda.gov/scripts/ndisapi.dll/oip_public/USA_map">http://mimosas.itc.nrcs.usda.gov/scripts/ndisapi.dll/oip_public/USA_map</a> for a USDA service center in your area. WPB: West Palm Beach Service Center 559 N. Military Tr. West Palm Beach, FL 33415
Florida Coastal Protection Trust Fund	The purpose is to provide a mechanism to have financial resources immediately available for prevention of, and cleanup and rehabilitation after, a pollutant discharge, to prevent further damage by the pollutant, and to pay for damages.		Florida Statutes <a href="http://www.leg.state.fl.us/citizen/documents/statutes/1993/CHAPTER_376_11.html">http://www.leg.state.fl.us/citizen/documents/statutes/1993/CHAPTER_376_11.html</a>

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Florida Communities Trust	Florida Communities Trust (FCT) is a State land acquisition grant program housed at the Florida Department of Community Affairs. FCT provides funding to local governments and eligible non-profit environmental organizations for acquisition of community-based parks, open space, and greenways that further outdoor recreation and natural resource protection needs identified in local government comprehensive plans. Matching and full grants for land acquisition projects are provided to communities through an annual competitive application cycle. Approximately \$66 million is available to eligible applicants each year, and applicants are eligible for up to 6.6 million or 10 percent of this amount.		2555 Shumard Oak Blvd Tallahassee, FL 32399-2100 (850) 922-2207 Fax: (850) 921-1747 E-mail: <a href="mailto:fctinfo@dca.state.fl.us">fctinfo@dca.state.fl.us</a> <a href="http://www.dca.state.fl.us/ffct/">http://www.dca.state.fl.us/ffct/</a>
Florida Hurricane Catastrophe Fund (FHCF)	The purpose of the FHCF is to protect and advance the State's interest in maintaining insurance capacity in Florida by providing reimbursements to insurers for a portion of their catastrophic hurricane losses.		1801 Hermitage Blvd. Tallahassee, FL 32308 (850) 413-1349 Fax: (850) 413-1344 <a href="http://www.fsba.state.fl.us/fhcf/about.asp">www.fsba.state.fl.us/fhcf/about.asp</a>
Hazard Mitigation Grant Program	To prevent future losses of lives and property due to disasters, to implement State or local hazard mitigation plans, to enable mitigation measures to be implemented during immediate recovery from a disaster, and to provide funding for previously identified mitigation measures to benefit the disaster area.	State and local governments; certain private and nonprofit organizations or institutions; Native American tribes or authorized tribal organizations; and native villages or organizations.	Federal Emergency Management Agency Mitigation Directorate 500 AC@ St., SW Washington, DC 20472 (202) 646-4621 <a href="http://www.fema.gov/mit/">http://www.fema.gov/mit/</a>
Hazard Reduction Program	Funding for research and related educational activities on hazards.		National Science Foundation, Directorate for Engineering, Division of Civil and Mechanical Systems, Hazard Reduction Program (703) 306-1360
Hazardous Materials Assistance Program (Comprehensive Environmental Response, Compensation and Liability Act [CERCLA] Implementation)	Provide technical and financial assistance through the States to support State, local, and tribal governments in oil and hazardous materials emergency planning and exercising. To support the Comprehensive Hazardous Materials Emergency Response – Capability Assessment Program activities.	State, local, and tribal governments, State emergency response committees, local emergency planning commissions.	Department of Homeland Security Emergency Preparedness and Response Directorate

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Hazardous Materials Emergency Preparedness (HMEP) Grant	The HMEP grant program is intended to provide financial and technical assistance as well as national direction and guidance to enhance State, territorial, tribal, and local hazardous materials emergency planning and training. The HMEP Grant Program distributes fees collected from shippers and carriers of hazardous materials to emergency responders for hazmat training and to Local Emergency Planning Committees for hazmat planning.		Federal Emergency Management Agency 500 C St., SW Washington, DC 20472 <a href="http://www.fema.gov/">http://www.fema.gov/</a>
Hazardous Materials Emergency Preparedness Training and Planning Grants	Increase State, local, territorial, and Native American tribal effectiveness to safely and efficiently handle HazMat accidents and incidents, enhance implementation of the Emergency Planning and Community Right-to-Know Act of 1986, and encourage a comprehensive approach to emergency planning and training by incorporating response to transportation standards.	States, local, territorial, tribal governments	Department of Transportation Research and Special Programs Administration <a href="http://www.rspa.dot.gov">www.rspa.dot.gov</a>
Hazardous Waste Management State Program Support	To assist State governments in the development and implementation of an authorized hazardous waste management program for the purpose of controlling the generation, transportation, treatment, storage, and disposal of hazardous wastes. State project to develop a hazardous waste program designed to meet the substantive and procedural requirements of an authorized program. (Section 3006).	State agencies responsible for hazardous waste management within the 50 states.	Grants Administration Division (3903R), Environmental Protection Agency, Washington, DC 20460
Hazardous Waste Worker Health and Safety	To assist organizations in the development of institutional competency through appropriate training and education to hazardous waste workers.		Department of Health and Human Services, Public Health Service National Institutes of Health Office of Extramural Outreach and Information National Institutes of Health 6701 Rockledge Dr., MSC 7910 Bethesda, MD 20892-7910 (301) 435-7910 <a href="http://www.nih.gov/">http://www.nih.gov/</a>

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Healthy Homes Demonstration Grants.	The purpose of the Healthy Homes Demonstration Program is to develop, demonstrate, and promote cost-effective, preventive measures to correct multiple safety and health hazards in the home environment that produce serious diseases and injuries in children of low-income families. The U.S. Department of Housing and Urban Development (HUD) is interested in reducing health threats to the maximum number of residents, especially children, in a cost efficient manner.	Eligible applicants include not-for-profit institutions; for-profit institutions (for-profit firms are not allowed to profit from the project) located in the U.S., State, and local governments; and Federally-recognized Native American tribes. Federal agencies and Federal employees are not eligible to apply for this program.	Ms. Ellen Taylor, Director, Healthy Homes Program. Office of Healthy Homes and Lead Hazard Control, (202) 755-1785, extension 116 E-mail: Ellen_R._Taylor@hud.gov
Historic Preservation Fund Grants-in-Aid	To provide matching grants to states for the identification, evaluation, and protection of historic properties by such means as survey, planning technical assistance, acquisition, development, and certain Federal tax incentives available for historic properties; to provide matching grants to States to expand the National Register of Historic Places; and to provide matching grants to the National Trust for Historic Preservation for its congressionally chartered responsibilities to preserve historic resources.	State and local governments and public and private nonprofit organizations and individuals.	Department of the Interior National Park Service, Preservation Heritage Services Division 1849 C Street, NW Washington, DC 20240 (202) 343-6004
Historic Preservation Grants	To assist in the identification, excavation, protection, and rehabilitation of historic and archaeological sites in Florida; to provide public information about these important resources; and to encourage historic preservation in smaller cities through the Florida Main Street program.	Departments or agencies of the State (including universities), cities, counties, and other units of local government, and not-for-profit organizations.	Division of Historical Resources 500 S. Bronough Street Tallahassee, FL 32399-0250 (850) 245-6300
Human Health Studies, Applied Research and Development	To solicit scientific proposals designed to answer public health questions arising from situations commonly encountered at hazardous waste sites. The objective of this research program is to fill gaps in knowledge regarding human health effects of hazardous substances identified during the conduct of Agency for Toxic Substances and Disease Registry's (ATSDR's) health assessments, consultations, toxicological profiles, and health studies, including but not limited to those health conditions prioritized by ATSDR.	State health departments.	Department of Health and Human Services Centers for Disease Control www.atsdr.cdc.gov

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Hurricane Loss Mitigation Program	Funds Residential Construction Mitigation Program, which was developed in coordination with an advisory council consisting of representatives designated from the Department of Insurance, Florida Home Builders Association, Florida Insurance Council, Federation of Manufactured Home Owners, Florida Association of Counties, and Florida Manufactured Housing Association.		2555 Shumard Oak Blvd Tallahassee, FL 32399-2100 (850) 410-1563 Fax: (850) 410-1555 E-mail: ted.court@dca.state.fl.us <a href="http://www.floridacommunitydevelopment.org/programs/rcmp/files/onepager.PDF">http://www.floridacommunitydevelopment.org/programs/rcmp/files/onepager.PDF</a>
Hurricane Program	To significantly reduce the loss of life, property, economic disruption, and disaster assistance costs resulting from hurricanes.	Texas, Louisiana, Mississippi, Alabama, Florida.	Federal Emergency Management Agency Mitigation Directorate 500 AC@ St., SW Washington, DC 20472 (202) 646-4621 <a href="http://www.fema.gov/mit">http://www.fema.gov/mit</a>
Immunization Grants	To assist states and communities in establishing and maintaining preventative health service programs to immunize individuals against vaccine-preventable diseases.	States.	Department of Health and Human Services Centers for Disease Control <a href="http://www.cdc.gov">www.cdc.gov</a>
Immunization Research, Demonstration, Public Information and Education	To assist states, political subdivisions of states, and other public and private nonprofit entities to conduct research, demonstrations, projects, and provide public information on vaccine-preventable diseases and conditions.	States and nonprofit organizations.	Department of Health and Human Services Centers for Disease Control <a href="http://www.cdc.gov">www.cdc.gov</a>
Individual Assistance	To provide assistance to individuals and families who have been affected by natural or man-made Presidentially declared disasters. Funding provided from the Disaster Relief Fund.	Individuals and families.	Department of Homeland Security Emergency Preparedness and Response Directorate
Interoperable Communications Equipment Grant	To facilitate communications interoperability among public safety emergency responders at the State and local level.	State and local governments.	Department of Homeland Security Emergency Preparedness and Response Directorate
John D. and Catherine T. MacArthur Foundation	Initiates programs and supports their purposes including community development activities in Palm Beach County, Florida.	Open to non-profit, tax-exempt organizations.	John D. and Catherine T. MacArthur Foundation Program Area, Grants Management, Research and Information 140 S. Dearborn St., Suite 1100 Chicago, IL 60603-5285 (312) 726-8000 E-mail: <a href="mailto:4answers@macfdn.com">4answers@macfdn.com</a>

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Land and Water Conservation Fund (LWCF)	LWCF is a competitive program that provides grants for acquisition or development of land for public outdoor recreation use.	All local governmental entities with the legal responsibility for the provision of outdoor recreational sites and facilities for the use and benefit of the public.	Department of Environmental Protection Division of Recreation & Parks Bureau of Design & Recreation Services 3900 Commonwealth Boulevard MS #585 Tallahassee, Florida 32399-3000 (850) 488-7896 (Suncom 278-7896) Fax: (850) 488-3665 (Suncom 278-3665)
Land Protection, Natural Resources Conservation Service (NRCS)	The NRCS provides technical and financial assistance for runoff retardation and soil erosion prevention as needed to reduce hazards to life and property from floods, drought, and the products of erosion on any watershed impaired by a natural disaster. NRCS provides technical assistance for rehabilitation of land conservation systems for which FSA provides cost-sharing, and emergency protection to assist in relieving imminent hazards to life and property from floods and products of erosion created by natural hazards that are causing a sudden impairment of a watershed.		Contact USDA <a href="http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map">http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map</a> for a USDA service center in your area. WPB: West Palm Beach Service Center 559 N. Military Tr. West Palm Beach, FL 33415
Local Firefighting and Emergency Services Training	To provide specialized training and equipment to enhance the capability of metropolitan fire and emergency service departments to respond to terrorist attacks. To enhance readiness and preparedness of fire and emergency services personnel to respond to terrorist incidents of mass destruction where incendiary devices, nuclear, biological, or chemical agents are utilized.	Applicants requesting funding must have the capability to develop and provide training for fire and emergency service personnel that will prepare them to respond to a terrorist incident.	Office of State and Local Domestic Preparedness Support, Office of Justice Programs, Department of Justice 633 Indiana Ave. NE Washington, DC 20531 (202) 616-2920
Local Initiatives Support Corporation (LISC)	Helps existing community development groups revitalize urban neighborhoods throughout the country. By combining investments, technical assistance, and grants, LISC seeks to increase the ability of experienced local development groups to design projects of significant scale, raise and manage necessary capital, and work effectively with their natural allies in the private sector.	Available upon request.	John Mascotte, Chairman of the Board, or Paul S. Grogan, President Local Initiatives Support Corporation 733 3 <sup>rd</sup> Ave. New York, NY 10017 (212) 455-9800
Map Modernization	This funding provides assistance to develop digital flood maps, support flood-mapping activities, and expand the Cooperating Technical Partners Program to communities and regional entities.	State, local, and tribal governments.	Department of Homeland Security Emergency Preparedness and Response Directorate

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
National Fire Academy Educational Program	To increase the professional level of the fire service and others responsible for fire prevention and control. Students are provided an opportunity to attend courses at the National Fire Academy resident facility or at a convenient off-campus location with a minimal cost to the individual or the fire department represented. The increase in the number of students attending impacts the professional level of fire service personnel. Training is provided at the resident facility in Emmitsburg, Maryland, and in the field in cooperation with State or local fire training agencies on specific subjects to specific audiences.	Any individual who is a member of a fire department or has significant responsibility for fire prevention and control.	National Emergency Training Center, Educational and Technology Services Branch 16825 S. Seton Ave. Emmitsburg, MD 21727 (301) 447-1000
National Fire Academy Training Assistance (Student Stipend Reimbursement Program)	To provide travel stipends to students attending Academy courses. Examples of funded projects: students are provided an opportunity to attend courses at the National Fire Academy resident facility with a minimal cost to the individual or the fire department represented. The increase in the number of students attending impacts the professional level of fire service personnel.	Any student who is a member of a fire department or has significant responsibility for fire prevention and control and has been accepted into an eligible course at the National Fire Academy may apply for stipend reimbursement.	National Emergency Training Center, Educational and Technology Services Branch, 16825 S. Seton Ave Emmitsburg, MD 21727 (301) 447-1035
National Flood Insurance Program	Provides federally-backed flood insurance to those who generally were not able to obtain it from the private-sector companies, and to promote sound floodplain management practices in flood prone areas.		FEMA Region IV CRS Program 3003 Chamblee-Tucker Rd. Atlanta, GA 30431 (770) 220-5200
National Flood Mitigation Fund	To fund activities designed to reduce the risk of flood damage.	States and units of local government. Local governments must be participating in the National Flood Insurance Program.	Federal Emergency Management Agency Mitigation Directorate 500 AC@ St., SW Washington, DC 20472 (202) 646-4621 <a href="http://www.fema.gov/mit">http://www.fema.gov/mit</a>

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
National Hospital Bioterrorism Preparedness Grant	HRSA is providing financial assistance to authorized jurisdictions through the National Hospital Bioterrorism Preparedness Program's Cooperative Agreements to upgrade the preparedness of the Nation's health care system to respond to bioterrorism, other outbreaks of infectious disease, and other public health threats and emergencies. Awardees are required to address the following priority areas: hospital bed capacity, isolation capacity, health care personnel, hospital-based pharmaceutical caches, mental health services, trauma and burn care capacity, communications and information technology, personal protective and decontamination equipment, emergency medical services, linkages with public health departments, education and training, and preparedness exercises.	Public Health Departments in all 50 States Territories (USVI, Guam, Puerto Rico, American Samoa, N. Marianas Islands) Freely Associated States of the Pacific (Federated States of Micronesia, Marshall Islands, Palau) New York, NY, Los Angeles County, CA, Chicago, IL, District of Columbia.	National Bioterrorism Hospital Preparedness Program Contacts Parklawn Building, Room 18A-38 5600 Fishers Lane Rockville, MD 20857 Fax: (301) 443-1296
National Weather Service	Provides weather and flood warnings, public forecasts, and advisories for all of the United States and territories. Technical assistance is provided to local, regional, and State agencies developing and operating warning programs.		National Weather Service, National Oceanic and Atmospheric Administration 1325 East-West Highway Silver Spring, MD 20910 <a href="http://www.nws.noaa.gov">http://www.nws.noaa.gov</a>
National Institute of Environmental Health Services Hazardous Waste Worker Health and Safety Training (Superfund Worker Training Program)	To provide cooperative agreements and project grant support for the development and administration of model worker health and safety training programs consisting of classroom and practical health and safety training of workers and their supervisors, who are engaged in activities related to hazardous materials, hazardous waste generation, treatment, storage, disposal, removal, containment, transportation, or emergency response. Programs provide health and safety training and education for occupational population involved in waste handling and processing at active and inactive hazardous substance treatment, storage, and disposal facilities; cleanup, removal, containment, or remedial action at waste sites; hazardous substance emergency response; hazardous substance disposal site risk assessment and investigation, remedial actions, or clean-up by State and local personnel; and transportation of hazardous wastes.	A public or private nonprofit entity providing worker health and safety education and training may submit an application and receive a cooperative agreement or project grant for support of waste worker education and training by a named principal investigator. Nonprofit organizations that are incorporated under 501(c)(4) are prohibited from receiving grants.	Grants Management Contact: Dorothy G. Williams, Grants Management Officer, Grants Management Branch, Division of Extramural Research and Training, National Institute of Environmental Health Sciences, National Institutes of Health, Department of Health and Human Services P.O. Box 12233 Research Triangle Park, NC 27709 (919) 541-2749 E-mail: <a href="mailto:Williams@niehs.nih.gov">Williams@niehs.nih.gov</a>



Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
National Institute of Environmental Health Sciences (NIEHS) Superfund Hazardous Substances: Basic Research and Education (NIEHS Superfund Research Program)	It is intended to integrate advanced or graduate training into the multidisciplinary research program to provide for training in environmental and occupational health and safety; the engineering aspects of hazardous waste control; and graduate training in the geosciences. This interdisciplinary program supports basic research in the following: development and use of methods and technologies to detect hazardous substances in the environment; development of advanced techniques for the detection, assessment, and evaluation of the effects of human health presented by hazardous substances; and the development and use of basic biological, chemical, and physical methods and technologies to reduce the amount of toxicity of hazardous substances.	An accredited institution of higher education, as defined in the Higher Education Act, 20 U.S.C. (annotated) 3381, may submit an application and receive a grant for support of research by a named principal investigator. Nonprofit organizations that are incorporated under 501(c)(4) are prohibited from receiving grants.	Grants Management Contact: Dorothy G. Williams, Grants Management Officer, Department of Health and Human Services P.O. Box 12233 Research Triangle Park, NC 27709 (919) 541-2749 E-mail: Williams@niehs.nih.gov
Non-Structural Alternatives to Structural Rehabilitation of Damaged Flood Control Works	Direct planning and construction grants for non-structural alternatives to the structural rehabilitation of flood control works damaged in floods or coastal storms (\$9 million FY 99).		Department of Defense-U.S. Army Corps of Engineers (USACE) Emergency Management contact in respective USACE field office South Atlantic (404) 331-6795
North American Wetlands Conservation Act (NAWCA) Grant Program	The North American Wetlands Conservation Act Grant Program promotes long-term conservation of North American wetland ecosystems, waterfowl and other migratory birds, fish, and wildlife that depend upon such habitat. Principal conservation actions supported by NAWCA are acquisition, enhancement, and restoration of wetlands and wetlands-associated habitat. The program encourages voluntary, public-private partnerships to conserve North American wetland ecosystems by creating an infrastructure and providing a source of funding.	Public or private, profit or non-profit entities or individuals establishing public-private sector partnerships.	Department of the Interior Fish and Wildlife Service, North American Waterfowl and Wetlands Office 4401 N. Fairfax Dr., Rm. 110 Arlington, VA 22203 (703) 358-1784 <a href="http://www.fws.gov/~r9nawwo/homepag.html">http://www.fws.gov/~r9nawwo/homepag.html</a>
Office of Domestic Acquisition Program (ODP)	The goal of the ODP Equipment Grant Program is to provide funding to enhance the capacity of State and local jurisdictions to respond to, and mitigate the consequences of, incidents of domestic terrorism involving the use of weapons of mass destruction.	All 50 states, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, the Commonwealth of Northern Mariana Islands (CNMI), Guam, and the U.S. Virgin Islands.	ODP Help Line at (800) 368-6498

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Outdoor Recreation: Acquisition, Development and Planning (Land and Water Conservation Fund Grants)	To provide financial assistance to the states and their political subdivisions for the preparation of Statewide Comprehensive Outdoor Recreation Plans (SCORPs) and acquisition and development of outdoor recreation areas and facilities for the general public, to meet current and future needs. Examples of funded projects: acquisition and development grants may be used for a wide range of outdoor recreation projects, such as picnic areas, inner city parks, campgrounds, tennis courts, boat launching ramps, bike trails, outdoor swimming pools, and support facilities such as roads, water supply, etc.	For planning grants, only the State agency formally designated by the Governor or State law as responsible for the preparation and maintenance of the SCORP is eligible to apply. For acquisition and development grants, the above designated agency may apply for assistance for itself, or on behalf of other State agencies or political subdivisions, such as cities, counties, and park districts.	Chief, Recreation Program, National Park Service, (2225), Department of the Interior 1849 C Street, NW, Room 3624 Washington, DC 20240 (202) 565-1133
Partners for Fish and Wildlife	Financial and technical assistance to private landowners interested in pursuing restoration projects affecting wetlands and riparian habitats.		Department of Interior – Fish and Wildlife Service National Coordinator, Ecological Services: (703) 358-2201 A list of State and regional contacts is available from the National Coordinator upon request.
Physical Disaster Loans and Economic Injury Disaster Loans	Disaster loans to non-farm, private sector owners of disaster damaged property for uninsured losses. Loans can be increased by up to 20 percent for mitigation purposes.		Small Business Administration National Headquarters Associate Administrator for Disaster Assistance: (202) 205-6734
Planning Assistance to States (Section 22)	To cooperate with any state in the preparation of comprehensive plans for the development, utilization, and conservation of water and related land resources of drainage basins located within the boundaries of such state. The state must have a planning program for the development, utilization, or conservation of the water and related land resources underway or laid out in sufficient detail so that the relationship of a state's request for Corps input for some particular aspect of the program may be appraised.	The 50 states.	U.S. Army Corps of Engineers Attn: CECW-PF Washington, DC 20314-1000 (202) 272-0169
Planning Assistance to States Program	To assist the states in the preparation of comprehensive plans for the development, utilization, and conservation of water and related land resources. Floodplain management services intended to assist states in planning related to water supply, water quality, water conservation, environmental restoration and enhancement, hydropower development, flood control, or erosion and navigation.	States, District of Columbia, U.S. Territories, and federally recognized Native American tribes.	Department of Defense U.S. Army Corps of Engineers Attn: CECW-PM DoD Washington, DC 20314-1000 (202) 272-0169 <a href="http://www.usace.army.mil/">http://www.usace.army.mil/</a>

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Port Security Grants for Critical National Seaports	To support efforts of critical national seaports/terminals to enhance port security through security assessments and mitigation strategies; and enhanced facility and operational security (e.g., terminal, commuter, or ferry vessels access control, physical security, cargo security, and passenger security), including proof of concepts.	Public and private ports or terminals; State/local government entities; and consortiums composed of local stakeholder groups (i.e., river groups, ports, and terminal associations). Private entities will be considered when security interests related to location and/or operation affects the greater public interest. Consultants may prepare applications for an eligible party, but only the eligible party may submit and be considered for the grant. Prerequisites: for Enhanced Facility and Operational Security grants, applicants must have already completed a security assessment and tie the security enhancements to the assessment.	Transportation Security Administration Headquarters, Office of Maritime and Land Security, Grants/Contracts Management Branch, TSA-8 701 South 12th Street Arlington VA 22202 Tony Corio tony.corio@dhs.gov (571) 227-1233
Post-Disaster Economic Recovery Grants and Assistance	Grant funding to assist with the long-term economic recovery of communities, industries, and firms adversely impacted by disasters.		Department of Commerce – Economic Development Administration (EDA) EDA Headquarters Disaster Recovery Coordinator: (202) 482-6225
Pre-Disaster Mitigation Program	This program provides funding for mitigation activities before disasters strikes. In recent years it has provided assistance for mitigation planning. In FY 03, Congress passed a competitive pre-disaster mitigation grant program that will include project funding.	State, local, and tribal government.	Department of Homeland Security Emergency Preparedness and Response Directorate
Project Modifications for Improvement of the Environment	Provides for ecosystem restoration by modifying structures and/or operations or water resources projects constructed by the USACE, or restoring areas where a USACE project contributed to the degradation of an area.		Department of Defense (DOD)-USACE Chief of Planning @ appropriate USACE Regional Office South Atlantic: (404) 331-6270
Property Improvement Loan Insurance for Improving All Existing Structures and Building of New Nonresidential Structures (Title I)	To facilitate the financing of improvements to homes and other existing structures and the building of new nonresidential structures. Insured loans may be used to finance alterations, repairs, and improvements for existing structures and the building of new nonresidential structures that substantially protect or improve the basic livability or utility of the properties.	Eligible borrowers include the owner of the property to be improved, lessee having a lease extending at least 6 months beyond maturity of the loan, or a purchaser of the property under a land installment contract.	Persons are encouraged to contact the Homeownership Center serving their state, or nearest local HUD office.

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Protection of Essential Highways, Highway Bridge Approaches, and Public Works (Emergency Bank Protection)	To provide bank protection of highways, highway bridges, essential public works, churches, hospitals, schools, and other nonprofit public services endangered by flood-caused erosion. Reinforced barriers at either side of bridge approachments. Corps of Engineers designs and constructs the project. Nonfederal sponsor must share in projects costs, including cash and lands, easements, right-of-way and utility relocations; hold and save the United States free from damages; and maintain the project at local cost after completion.	States, political subdivisions of states or other responsible local agencies established under State law with full authority and ability to undertake necessary legal and financial responsibilities.	U.S. Army Corps of Engineers Attn: CECW-PM Washington, DC 20314-1000 (202) 272-1975
Protection of Forests and Rangelands	The Forest Service (FS) sets priorities, establishes policies, and provides financial and technical assistance to State Foresters. The FS provides technical and financial assistance to State Foresters in mitigating and improving their fire suppression capability, and serves as a technical fire advisor to FEMA in the Fire Suppression Assistance Program.	Federal and State agencies and organizations, and State and private lands.	Contact USDA <a href="http://mimosita.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map">http://mimosita.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map</a> for a USDA service center in your area. WPB: West Palm Beach Service Center 559 N. Military Tr. West Palm Beach, FL 33415
Public Assistance	To provide supplemental assistance to states, local governments, and certain private nonprofit organizations to alleviate suffering and hardship resulting from major disasters or emergencies declared by the President.	State and local governments and any political subdivision of a state, Native American tribes, and native villages are eligible. Also eligible are private nonprofit organizations that operate educational, utility, emergency, or medical facilities and provide custodial care or other essential services of governmental nature to the general public.	Federal Emergency Management Agency Infrastructure Support Division, Response and Recovery Directorate 500 AC@ St., SW Washington, DC 20472 (202) 646-3026 <a href="http://www.fema.gov/mit/">http://www.fema.gov/mit/</a>
Public Health and Social Services Emergency Fund	To continue to prepare our nation's public health system and hospitals for possible mass casualty events, and to accelerate research into new treatments and diagnostic tools to cope with possible bioterrorism incidents.	Individuals, families, Federal, State, and local government agencies and emergency health care providers.	Department of Health and Human Services <a href="http://www.hhs.gov">www.hhs.gov</a>
Public Housing Modernization Reserve for Disasters and Emergencies	Funding to public housing agencies for modernization needs resulting from natural disasters (including elevation, floodproofing, and retrofit).		HUD Director, Office of Capital Improvements: (202) 708-1640

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Radiation Control: Training Assistance and Advisory Counseling	To assist states in achieving, maintaining, and improving their capabilities to conduct radiation control programs. This will assure that State programs established through agreements with NRC for transfer of certain NRC regulatory authority over atomic energy materials to the states will continue to be adequate to protect health and safety and be compatible with NRC's regulatory program. Training is made available to personnel of State and local governments in order to improve the radiological health training of staff members responsible for carrying out radiation control programs. Courses are provided in health physics and radiation protection, safety aspects of using radioactive materials, regulatory practices and procedures, and compliance inspection.	State and local government agencies that are or will be responsible for administering radiation control programs under an agreement with NRC for assumption by the State of regulatory authority initially exercised by the NRC.	Brenda Usilton, Office of State Programs, Nuclear Regulatory Commission, Washington, DC 20555 (301) 415-2348
Recreation Development Assistance Program	Florida Recreation Development Assistance Program (FRDAP) is a competitive program that provides grants for acquisition or development of land for public outdoor recreational use or to construct or renovate recreational trails.	Municipal and county governments or other legally constituted entities with the legal responsibility to provide public outdoor recreation.	Bureau of Design and Recreation Services 3900 Commonwealth Boulevard Mail Station #585 Tallahassee, Florida 32399-3000 (850) 488-7896 (Suncom 278-7896) Fax: (850) 488-3665 (Suncom Fax 278-3665)
Rehabilitation Mortgage Insurance (203[k])	To help families repair or improve, purchase and improve, or refinance and improve existing residential structures more than 1 year old. HUD insures lenders against losses on loans. These loans may be used to rehabilitate an existing one to four unit dwelling in one of four ways: purchase a structure and the land on which the structure is located and rehabilitate it; purchase a structure on another site, move it onto a new foundation on the mortgaged property, and rehabilitate it; refinance the existing indebtedness and rehabilitate such a structure; or rehabilitate such a structure.	Individual purchasers or investors are eligible to apply.	Persons are encouraged to contact the Homeownership Center serving their State, or the nearest local HUD office.

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Rural Development Assistance -- Utilities	Direct and guaranteed rural economic loans and business enterprise grants to address utility issues and development needs.		USDA-Rural Utilities Service Program Support: (202) 720-1382 Northern Regional Division: (202) 720-1402 Electric Staff Division: (202) 720-1900 Power Supply Division: (202) 720-6436
Rural Development Assistance – Housing	Grants, loans, and technical assistance in addressing rehabilitation, health and safety needs in primarily low-income rural areas. Declaration of major disaster necessary.		USDA-Rural Housing Service Community Programs: (202) 720-1502 Single Family Housing: (202) 720-3773 Multi Family Housing: (202) 720-5177
School Emergency Response and Crisis Management Plan Discretionary Grant Program	To provide school districts with funds to strengthen and improve current school crisis plans in preparation for emergencies including potential terrorist attacks.	School districts.	Department of Education <a href="http://www.ed.gov/emergencyplan/">www.ed.gov/emergencyplan/</a>
Section 108 Loan Guarantee Program	Loan guarantees to public entities for community and economic development (including mitigation measures).		HUD Community Planning and Development staff at appropriate HUD field office, or the Section 108 Office at HUD Headquarters: (202) 708-1871
Small Business Administration (SBA) Pre-Disaster Mitigation Loan Program	The purpose of the Pre-Disaster Mitigation Loan Program is to make low-interest, fixed-rate loans to eligible small businesses for the purpose of implementing mitigation measures to protect business property from damage that may be caused by future disasters. The program is a pilot program, which supports FEMA's Pre-Disaster Mitigation Program. SBA's Pre-Disaster Mitigation Program is available to businesses whose proposed mitigation measure conforms to the priorities and goals of the mitigation plan for the community, as defined by FEMA, in which the business is located.		Disaster Area 2 Office One Baltimore Place, Suite 300 Atlanta, GA 30308 1-800-359-2227 <a href="http://www.sba.gov/disaster_recov/loaninfo/pre_disaster_mitigation.html">http://www.sba.gov/disaster_recov/loaninfo/pre_disaster_mitigation.html</a>
Small Cities Community Development Block Grant Program	Provides funds to rural communities to improve local housing, streets, utilities, and public facilities. The Section 108 Loan Guarantee Program offers local governments a source of financing for economic development, large-scale public facility projects, and public infrastructure.		Ian Smith (850) 922-1870 Susan Cook (850) 487-3644 Rick Stauts, Planning Manager with the Department of Community Affairs (850) 487-3644

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Snagging and Clearing for Flood Control (Section 208)	To reduce flood damages. Corps of Engineers designs and constructs the project. The nonfederal sponsor must provide all lands, easements, and rights-of-way; provide all project costs in excess of the Federal limit of \$500,000; agree to maintain project after construction; hold and save the United States free from damages; provide a contribution toward construction costs for land enhancement or special benefits; agree to prevent future encroachment, which might interfere with proper functioning of the project for flood control.	States, political subdivisions of states, or other responsible local agencies established under State law with full authority and ability to undertake necessary legal and financial responsibilities.	U.S. Army Corps of Engineers Attn: CECW-PM Washington, DC 20314-1000 (202) 272-1975
South Florida Coastal Ecosystem Program	To seek the most technically sound and cost effective proposals that specifically address priority issues within South Florida's coastal ecosystem, such as restoring and enhancing degraded coastal uplands and estuarine wetlands, removing exotic vegetation from coastal areas and promoting research and public awareness of South Florida's ecological problems, to identify opportunities in which partnerships can be formed to create, restore and enhance coastal resources, and to develop partnerships among Federal, State, and local governments as well as academic, non-governmental, and business entities in South Florida.	Federal, State, and local government agencies, academic institutions, non-profit groups, and/or citizens are eligible to respond directly.	U.S. Fish & Wildlife Service South Florida Ecological Services Office 1339 20 <sup>th</sup> Street Vero Beach, Florida 32960-3559
Special Economic Development and Adjustment Assistance Program - Sudden and Severe Economic Dislocation and Long Term Economic Deterioration	To help State and local areas develop and/or implement strategies designed to address structural economic adjustment problems resulting from sudden and severe economic dislocation such as plant closings, military base closures, and defense contract cutbacks, and natural disasters, or from long-term economic deterioration in the area's economy.	States, cities, counties, or other political subdivisions of a State, consortia of such political subdivisions, public or private nonprofit organizations representing redevelopment areas designated under the Public Works and Economic Redevelopment Act of 1965, Economic Development Districts established under Title IV of the Act, and Native American tribes.	Department of Commerce Economic Adjustment Division, Economic Development Administration Room H7327, Herbert C. Hoover Bldg. Washington, DC 20230 (202) 482-26659 <a href="http://www.doc.gov/eda/">http://www.doc.gov/eda/</a>
State Disaster Preparedness Grants (Disaster Preparedness Improvement Grants)	To assist states in developing and improving State and local plans, programs, and capabilities for disaster preparedness and prevention. Improvement grants have produced a variety of products such as mitigation training courses, enhanced State preparedness efforts, revised assistance, and hazard mitigation plans.	All states are eligible.	C. Dwight Poe, State and Local Preparedness, Training, and Exercises Directorate, Federal Emergency Management Agency Washington, DC 20472 (202) 646-3492

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
State Domestic Preparedness Equipment Support Program	Funding will be provided to enhance first responder capabilities, and to provide for equipment purchases and exercise planning activities for response to Weapons of Mass Destruction domestic terrorist incidents.	State and local governments.	Department of Justice Office of Domestic Preparedness <a href="http://www.usdoj.gov">www.usdoj.gov</a>
State Homeland Security Grant Program	To provide for the purchase of specialized equipment to enhance the capability of State and local agencies to prevent and respond to incidents of terrorism involving the use of chemical, biological, radiological, nuclear or explosive (CBRNE) weapons; for the protection of critical infrastructure and prevention of terrorist incidents; for costs related to the design, development, conduct, and evaluation of CBRNE exercises; for costs related to the design, development, and conduct, of a State CBRNE Training Program; and for costs associated with updating and implementing each state's Homeland Security Strategy.	State and local governments; first responders.	Department of Homeland Security Border and Transportation Security Directorate <a href="http://www.ojp.usdoj.gov">www.ojp.usdoj.gov</a>
State and Local All Hazards Emergency Operations Planning	The purpose of the State and Local All Hazards Emergency Operation Planning Program is to supplement and assist State and local efforts to prepare themselves to respond to emergencies or disasters including any that may be caused by terrorist attacks using conventional means or Weapons of Mass Destruction. Such preparedness requires an extraordinary level of inter-service and inter-jurisdictional planning and coordination. The program provides grants to the states to encourage the development or updating of comprehensive, all-hazard emergency management plans by the states and by local governments. The requisite planning base supports and promotes efforts to establish lasting working relationships and facilitates the development of a common incident command system, general availability of interoperable communications, and effective mutual aid. In partnership with the Federal Government, strong emergency management and emergency services organizations at the State and local levels ensure the continuance of a comprehensive national emergency management system for disasters or emergencies resulting from natural disasters or accidental or man-made events.	States are eligible to apply for assistance under this program. For purposes of this program and consistent with the Stafford Act, 42 U.S.C. 5122(4), "state" means any state of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands. Local governments may receive assistance as subgrantees to the states in which they are located. The term "local government" as used in this program has the meaning set forth in the Stafford Act, 42 U.S.C. 5122(6).	Gil Jamieson, Federal Emergency Management Agency, Office of National Preparedness 500 C Street, SW Washington, DC 20472 (202) 646-4090 E-mail: <a href="mailto:gil.jamieson@fema.gov">gil.jamieson@fema.gov</a> Fax: (202) 646-4053 24-hour per day FEMA Telephone Operator Service is available at (202) 566-1600 <a href="http://www.fema.gov">http://www.fema.gov</a>



Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
State and Local Anti-Terrorism Training	To provide delivery of specialized, multi-agency anti-terrorism preparedness training. This training, along with related research, law enforcement intelligence, operational issues development, and technical assistance support activities, is delivered to State and local law enforcement and prosecution authorities. While State and local law enforcement preparation and readiness issues addressed in this project are tailored to interventions in domestic terrorism, major portions of the program's preparedness and operational readiness outcomes are equally applicable to any terrorist threat or incident whether domestically or internationally inspired.	State and local law enforcement and prosecution authorities.	Office of Justice Programs, Bureau of Justice Assistance, Department of Justice 810 Seventh Street, NW Washington, DC 20531 Contact: Program Development Division (202) 514-5943 <a href="http://www.usdoj.gov/bja">www.usdoj.gov/bja</a>
State and Local Domestic Preparedness Exercise Support	To enhance the capacity of State and local first responders to respond to a weapons of mass destruction terrorism incident involving chemical, biological, nuclear, radiological, incendiary, and explosive devices.	Eligible applicants are public or private organizations with the expertise and experience to provide assistance to State and local jurisdictions; to facilitate, conduct, and evaluate exercises; and/or to develop guidance, materials, and publications related to the conduct of exercises or lessons learned.	Office for Domestic Preparedness, Office of Justice Programs U.S. Department of Justice 810 Seventh Street, NW Washington, DC 20531 (202) 305-9887 <a href="http://www.ojp.usdoj.gov">http://www.ojp.usdoj.gov</a>
State and Local Domestic Preparedness Technical Assistance	To enhance the capacity of State and local first responders to respond to a weapons of mass destruction terrorism incident involving chemical, biological, nuclear, radiological, incendiary, and explosive devices. The program goals are to enhance the ability of State and local jurisdictions to develop, plan, and implement a program for weapons of mass destruction preparedness and to sustain and maintain specialized equipment.	Applicants may be public or private organizations with the expertise and experience to provide a specialized service or a full range of assistance to enhance the capacity of State and local emergency response agencies to respond to a weapons of mass destruction terrorism incident.	Office for Domestic Preparedness, Office of Justice Programs U.S. Department of Justice 810 Seventh Street, NW Washington, DC 20531 (202) 305-9887 <a href="http://www.ojp.usdoj.gov">http://www.ojp.usdoj.gov</a>
State Rural Hospital Flexibility Program	To help states work with rural communities and hospitals to develop and implement a rural health plan, designate critical access hospitals, develop integrated networks of care, improve emergency medical services, and improve quality, service, and organizational performance.	States with at least one hospital in a non-metropolitan region.	Department of Health and Human Services Health Resources and Services Administration <a href="http://www.ruralhealth.hrsa.gov">www.ruralhealth.hrsa.gov</a>

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Stewardship Incentives Program	The Stewardship Incentives Program provides technical and financial assistance to encourage non-industrial private forest landowners to keep their lands and natural resources productive and healthy. Qualifying land includes rural lands with existing tree cover or land suitable for growing trees and which is owned by a private individual, group, association, corporation, Native American tribe, or other legal private entity. Eligible landowners must have an approved Forest Stewardship Plan and own 1,000 or fewer acres of qualifying land. Authorization may be obtained for exceptions of up to 5,000 acres.		Contact USDA, Forest Service <a href="http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map">http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map</a> for a USDA service center in your area. WPB: West Palm Beach Service Center 559 N. Military Tr. West Palm Beach, FL 33415
Surface Transportation Program (STP)	The STP provides flexible funding that may be used by States and localities for projects on any Federal-aid highway, including the National Highway System, bridge projects on any public road, transit capital projects, and intracity and intercity bus terminals and facilities. A portion of funds reserved for rural areas may be spent on rural minor collectors. Eligible activities include environmental restoration and pollution abatement projects, including retrofit or construction of stormwater treatment facilities and natural habitat mitigation.		Florida Department of Transportation
Superfund Hazardous Substances Basic Research and Education	To establish and support an innovative program of basic research and training consisting of multi-project, interdisciplinary efforts that may include each of the following: methods and technologies to detect hazardous substances in the environment; advance techniques for the detection, assessment, and evaluation of the effects of hazardous substances on humans; methods to assess the risk to human health presented by hazardous substances; and basic biological, chemical, and physical methods to reduce the amount and toxicity of hazardous substances.	Any public or private entity involved in the detection, assessment, evaluation, and treatment of hazardous substances; and State and local governments.	Department of Health and Human Services National Institute of Health <a href="http://www.nih.gov">www.nih.gov</a>

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Surveillance of Hazardous Substance Emergency Events	To assist State health departments in developing a State-based surveillance system for monitoring hazardous substance emergency events. This surveillance system will allow the State health department to better understand the public health impact of hazardous substance emergencies by developing, implementing, and evaluating a State-based surveillance system	State, local, territorial, and tribal public health departments.	Department of Health and Human Services Centers for Disease Control www.atsdr.cdc.gov
Surveys, Studies, Investigations, Training Demonstrations and Educational Outreach	Grants are awarded to support Surveys, Studies, Investigations, Training Demonstrations, Educational Outreach and Special Purpose assistance relating to the protection of public health and the environment from potential risk from toxic chemicals to come. Funding priority: annual funding priority topics for FY 2003 include, but are not limited to, promotion of pollution prevention and the public's right to know about chemical risks, evaluation of pesticides and chemicals to safeguard all Americans, including children and other vulnerable members of the population, as well as our most threatened species and ecosystems from environmental harm and emerging issues like biotechnology, endocrine disruptors, and lead poisoning prevention.	Assistance under this program is generally available to states, U S territories or possessions, federally recognized Native American tribal governments and organizations, public and private universities and colleges, hospitals, laboratories, and other public or private nonprofit institutions and individuals. Non-profit organizations described in Section 501(c)(4) of the Internal Revenue Code that engage in lobbying activities as defined in Section 3 of the Lobbying Disclosure Act of 1995 are not eligible to apply.	EPA, Office of Prevention, Pesticides, and Toxic Substances 1200 Pennsylvania Avenue, NW Washington, DC 20460
Sustainable Development Challenge Grants	To catalyze community-based and regional projects and other actions that promote sustainable development, thereby improving environmental quality and economic prosperity; leverage significant private and public investments to enhance environmental quality by enabling community sustainability efforts to continue past Environmental Protection Agency funding; build partnerships that increase a community's long-term capacity to protect the environment through sustainable development; and enhance the Environmental Protection Agency's ability to provide assistance to communities and promote sustainable development, through lessons. Examples of funded projects: from Grassroots to Tree Roots – Sustaining Forestry in New Hampshire promotes using better forest management practices to protect environmental quality and sustain the State's timber industry. Mid-City Green Project Building Materials Exchange will expand its current Paint Exchange into a	Eligible applicants include community groups and other nonprofit organizations, local governments, universities, tribes, and states.	Office of Air and Radiation Environmental Protection Agency Program Contact: Pamela Hurt (202) 260-2441

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
	full-scale building materials exchange to reduce the amount of discarded construction materials waste in the New Orleans area and encourage urban renewal. This will be accomplished through construction materials recovery, transformation, and low-cost resale; neighborhood rehabilitation promotion; creative reuse; and education.		
Transfers of Inventory Farm Properties to Federal and State Agencies for Conservation Purposes	Transfers title of certain inventory farm properties owned by Farm Service Agency to Federal and State agencies for conservation purposes (including the restoration of wetlands and floodplain areas to reduce future flood potential).		U.S. Department of Agriculture – Farm Service Agency Farm Loan Programs National Office: (202) 720-3467 extension 1632
Transportation Enhancements Program	Transportation enhancements are transportation-related activities that are designed to strengthen the cultural, aesthetic, and environmental aspects of the nation's intermodal transportation system. Eligible projects include environmental mitigation to address water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity.		Florida Department of Transportation
Trauma/Emergency Medical Services Grant	To improve the nation's overall emergency medical system, including the joint efforts between HRSA and National Highway Traffic Safety Administration to assess State systems and recommend improvements to the current system.		Rick Smith (301) 443-5372 rsmith@hrsa.gov
Urban Park and Recreation Recovery Program	To provide Federal grants to local governments for the rehabilitation of recreation areas and facilities, demonstration of innovative approaches to improve park system management and recreation opportunities, and development of improved recreation planning. Rehabilitation grants have been awarded to renovate a wide variety of existing community park and recreation facilities. Innovation grants have been awarded to demonstrate unique and cost-effective methods for providing better recreation services.	Eligible applicants are cities and counties meeting the eligibility requirements. Eligibility is based on need, economic and physical distress, and the relative quality and condition of urban recreation facilities and systems.	National Park Service, Recreation Programs 1849 C Street, NW, Room 3624 Washington, DC 20240 Contact: Ken Compton (202) 565-1133

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
U.S. Army Corps of Engineers	Provide planning and technical assistance to local governments to address local flood problems. The Floodplain Management Service Program and Planning Assistance to States Program can help local governments develop their own plans and initiate floodplain management actions. Under these programs, the Corps can provide flood data and carry out certain local studies.		<a href="http://www.usace.army.mil">http://www.usace.army.mil</a> <a href="http://www.saw.usace.army.mil">http://www.saw.usace.army.mil</a>
U.S. Geological Survey	Assists states and local governments in maintaining stream gauge stations. In addition, the agency has prepared inundation maps in many communities. These quadrangle floodplain maps of flood prone areas are often used to delineate the approximate floodplain boundaries on the maps FEMA has provided to local governments.		Florida Geological Survey <a href="http://www.usgs.gov">http://www.usgs.gov</a>
Volunteer Fire Assistance (VFA) Grants	The purpose of the VFA Program, formerly known as the Rural Community Fire Protection Program, is to provide Federal financial, technical, and other assistance to State foresters to organize, train, and equip fire departments in rural areas and rural communities to prevent and suppress fires.	<p>A single fire department serving a rural area or a rural community with a population of 10,000 or less is eligible (latest census).</p> <p>Area fire departments (fire districts, townships, etc.) may serve an aggregate population of greater than 10,000 as long as the service area of the fire department includes a rural area or a rural community having a population of 10,000 or less. The VFA funding must be used to benefit the rural population.</p> <p>A single county or town with a population over 10,000 that is served by two or more fire districts operating entirely within the bounds of the county or town may qualify as long as the service area of a given fire department includes a rural area or a rural community or the population of the fire department's jurisdiction is 10,000 or less. The VFA funding must be used for the rural area.</p> <p>A single community with a population greater than 10,000 and having a single fire department with one or more fire stations may qualify. The fire department must have a</p>	Forest Protection Bureau Division of Forestry 3125 Conner Boulevard Tallahassee, FL 32399-1650 (850) 488-6111

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
		<p>service area that includes a rural area or community that does not exceed 10,000 in population. The VFA funding must be used only for the benefit of the rural population. Similarly a single community with a population greater than 10,000, which also provide fire protection to an adjoining rural community of 10,000 or less population by contract, also may be eligible, provided the VFA funding is used entirely to support the rural community.</p> <p>A single community fire department serving a population greater than 10,000 and not providing protection to a rural area or to a rural community is not eligible for VFA financial assistance.</p>	
Wallace Global Fund	The Wallace Global Fund supports initiatives that promise to advance globally sustainable development in some fundamental way. The Fund seeks to maximize its impact by investing its resources in projects that meet the following criteria: tackle root problems that impede progress toward a sustainable future; propose compelling strategies for promoting environmentally and/or socially sustainable development, such as leveraging additional financial resources, catalyzing policy change, implementing innovative programs; offer potential for significant impact at the global level; and require private money, at least initially.		<a href="http://www.wgf.org/program_criteria.html">http://www.wgf.org/program_criteria.html</a>
Water Pollution Control: State and Interstate Program Support (106 Grants)	To assist states and interstate agencies in establishing and maintaining adequate measures for prevention and control of surface and ground water pollution. Grants are made to states and tribes for the administration of State and tribal programs for the prevention, reduction, and control of pollution. Activities funded include administration of State and Tribal Water Quality Standards programs; National Pollutant Discharge Elimination System permit programs; and compliance and enforcement, monitoring, and hazardous materials spills response. Broad support for the prevention and abatement of surface and ground water pollution from point and non-point sources including water	Eligible entities include State and interstate water pollution control agencies as defined in the Federal Water Pollution Control Act.	Carol Crow, State and Interstate Agencies, Section 106 Coordinator, Section 106, Office of Wastewater Management (4201), Office of Water, Environmental Protection Agency Washington, DC 20460 (202) 260-6742

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
	quality planning, monitoring, water quality standards, assessments, permitting, pollution control studies, planning, surveillance and enforcement; advice and assistance to local agencies; training; and public information.		
Water Quality Program Management	To improve water quality.		Environmental Protection Agency Office of Water Office of Wastewater Management (4201), Office of Water Washington, DC 20460
Watershed Operations -Small Watershed Program and Flood Prevention Program (WF 08 or FP 03)	The Small Watershed Program works through local government sponsors and helps participants solve natural resource and related economic problems on a watershed basis. Projects include watershed protection, flood prevention, erosion and sediment control, water supply, water quality, fish and wildlife habitat enhancement, wetlands creation and restoration, and public recreation in watersheds of 250,000 or fewer acres. Both technical and financial assistance are available.		Contact USDA, Natural Resources Conservation Service <a href="http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map">http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map</a> for a USDA service center in your area. WPB: West Palm Beach Service Center 559 N. Military Tr. West Palm Beach, FL 33415
Watershed Protection and Flood Prevention	To provide technical and financial assistance in carrying out works of improvement to protect, develop, and utilize the land and water resources in small watersheds.	Any State agency, county or groups of counties, municipality, town or township, soil and water conservation district, flood prevention or flood control district, Indian tribe or tribal organization, or any other non-profit agency with authority under State law to carry out, maintain, and operate watershed works of improvement may apply for assistance.	U.S. Department of Agriculture Natural Resources Conservation Service P.O. Box 2890 Washington, DC 20013
Watershed Protection and Flood Prevention Loans	To provide loan assistance to sponsoring local organizations in authorized watershed areas for share of cost for works of improvement.	Be a sponsoring local organization, such as a municipal corporation, soil and water conservation district, or other organization not operated for profit in the approved watershed project; and have authority under State law to obtain, give security for, and raise revenues to repay the loan and to operate and maintain the facilities to be financed with the loan.	Department of Agriculture Water and Waste Rural Utilities Service Washington, DC 20250 (202) 690-2670

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Watershed Surveys and Planning	The purpose of the program is to help Federal, State, and local agencies and tribal governments to protect watersheds from damage caused by erosion, floodwater, and sediment and to conserve and develop water and land resources. Resource concerns addressed by the program include water quality, opportunities for water conservation, wetland and water storage capacity, agricultural drought problems, rural development, municipal and industrial water needs, upstream flood damages, and water needs for fish, wildlife, and forest-based industries. Types of surveys and plans include watershed plans, river basin surveys and studies, flood hazard analyses, and flood plain management assistance. The focus of these plans is to identify solutions that use land treatment and nonstructural measures to solve resource problems.		Contact USDA, Natural Resources Conservation Service, Watershed Surveys and Planning <a href="http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map">http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map</a> for a USDA service center in your area. WPB: West Palm Beach Service Center 559 N. Military Tr. West Palm Beach, FL 33415
Watershed Surveys and Planning (Small Watershed Program; PL-566; Watershed Surveys and Planning)	To provide planning assistance to Federal, State, and local agencies for the development of coordinated water and related land resources programs in watersheds and river basins. Special priority is given to the objectives of setting priorities in helping to solve problems of upstream rural community flooding, water quality improvement coming from agricultural non-point sources, wetland preservation and drought management for agriculture and rural communities. Special emphasis is given to helping communities that desire to adopt floodplain management regulations to meet the requirements of the National Flood Insurance Program and State agencies in developing a strategic water resource plan. Examples of funded projects: in New Castle County, Delaware, the Central Pencader flood plain management study was initiated to guide land use, zoning, and subdivision decisions to develop sound flood plain and storm water management practices.	Any local or State water resource agency or other Federal agency concerned with water and related land resource development, counties, municipalities, town or township, soil and water conservation district, flood prevention or flood control district, Native American tribe or tribal organization or nonprofit organization.	Deputy Chief For Programs, Natural Resources Conservation Service, Department of Agriculture P.O. Box 2890 Washington, DC 20013 (202) 720-4527



Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Wetlands Program	To protect natural wetlands.		Department of Defense U.S. Army Corps of Engineers Attn: CECW-PM DoD Washington, DC 20314-1000 (202) 272-0169 <a href="http://www.usace.army.mil/">http://www.usace.army.mil/</a>
Wetlands Protection Grants	To assist states and Native American tribes in developing new or enhancing existing wetlands protection programs.	States, Native American tribes, and local governments.	Environmental Protection Agency Office of Water Office of Wastewater Management (4201), Office of Water Washington, DC 20460
Wetlands Reserve Program	The Wetlands Reserve Program is a voluntary program to restore wetlands. Participating landowners can establish conservation easements of either permanent or 30-year duration, or can enter into restoration cost-share agreements where no easement is involved.		Contact USDA, Natural Resources Conservation Service <a href="http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map">http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map</a> for a USDA service center in your area. WPB: West Palm Beach Service Center 559 N. Military Tr. West Palm Beach, FL 33415
Wetlands Protection: Development Grants	To assist states, tribes, and local governments in developing new or enhancing existing wetlands protection management and restoration programs. The projects that will be funded under this program should support the initial development of a wetlands protection restoration program or support enhancement/refinement of an existing program. Projects must clearly demonstrate a direct link to increasing a State's, tribe's, or local governments ability to protect, manage, and/or restore its wetlands resources.	State or tribal agencies, interstate/inter-tribal entities and associations, and local governmental entities are eligible to receive funding.	Peter Kalla, Wetlands Protection Section, Environmental Protection Agency Region IV, Atlanta, GA 30365 (404) 562-9414
Wetlands Reserve Program	Financial and technical assistance to protect and restore wetlands through easements and restoration agreements.		USDA-NRCS National Policy Coordinator NRCS Watersheds and Wetlands Division: (202) 720-3042

Table C.1. (Continued).

Funding Source	Objective	Eligibility	Sponsoring Organization
Wildland Urban Interface Community and Rural Fire Assistance	To implement the National Fire Plan and assist communities at risk from catastrophic wildland fires by providing assistance in the following areas: provide community programs that develop local capability including assessment and planning, mitigation activities, and community and homeowner education and action; plan and implement hazardous fuels reduction activities, including the training, monitoring, or maintenance associated with such hazardous fuels reduction activities, on Federal land, or on adjacent nonfederal land for activities that mitigate the threat of catastrophic fire to communities and natural resources in high risk areas; enhance local and small business employment opportunities for rural communities; enhance the knowledge and fire protection capability of rural fire districts by providing assistance in education and training, protective clothing, and equipment purchase, and mitigation methods on a cost share basis.	States and local governments at risk as published in the Federal Register, Native American tribes, public and private education institutions, nonprofit organizations, and rural fire departments serving a community with a population of 10,000 or less in the wildland/urban interface.	Bureau of Land Management Jackson, Mississippi Field Office 411 Briarwood Drive, Suite 404 Jackson, MS 39206 (601) 977-5400
Wildlife Habitat Incentives Program (WHIP)	The WHIP is a voluntary program for people who want to develop and improve wildlife habitat primarily on private lands. It provides both technical assistance and cost share payments to help establish and improve fish and wildlife habitat.	All lands are eligible for WHIP, except for: Federal lands; land currently enrolled in Waterbank, Conservation Reserve Program, Wetlands Reserve Program, or other similar programs; and lands where the expected impacts from on-site or off-site conditions make the success of habitat improvement unlikely.	Contact USDA <a href="http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map">http://mimosa.itc.nrcs.usda.gov/scripts/ndi/sapi.dll/oip_public/USA_map</a> for a USDA service center in your area. WPB: West Palm Beach Service Center 559 N. Military Tr. West Palm Beach, FL 33415

## **APPENDIX D**

### **DATA SOURCES**

Table D.1. Data sources used for the St. Lucie County Hazard Vulnerability and Risk Assessment.

Source	Data Type
<i>Natural Hazards - Hazards resulting from weather conditions, geologic conditions, or disruption of natural systems</i>	
Hurricanes and Severe Storms (Includes Tropical Storms and Northeasters)	
Natural Hazards Research Center	Historical and current data on all types of natural hazards
Atlantic Hurricane Tracking Database	Historical data on hurricane tracks and intensities
National Oceanic and Atmospheric Administration (NOAA) Tropical Cyclone Database	Historical hurricane data
Colorado State University (Dr. Gray online site)	Hurricane probability
National Aeronautics and Space Administration (NASA) Natural Disaster Reference Database	Historical data on all types of natural hazards
National Weather Service	Weather statistics
National Climate Data Center - online database	Weather statistics
Atlantic Ocean and Meteorological Laboratory, Hurricane Research Division	Hurricane forecast models
U.S. Census	Housing data
Federal Emergency Management Agency	Emergency management procedures
Tropical Storm Watch Database	Tropical storm data worldwide
Flood Insurance Rate Maps and Community Status Book	Areas vulnerable to potential rising water
Storm Surge Atlas for St. Lucie County (Sealand Overland Surges for Hurricanes [SLOSH] model)	Areas vulnerable to storm surge flooding based on the SLOSH model
U.S. Geological Survey	Base maps and historical flood plane and elevation data
Florida State University (Meteorology Department)	Data and expertise concerning all Florida natural hazards
Florida Atlantic University	Data and expertise concerning all Florida natural hazards
National Severe Storms Laboratory	Data on storm effects
Independent Insurance Agents of America (Natural Disaster Risk Database)	Probability data and estimated exposure. Building code recommendations to reduce exposure

Table D.1. (Continued).

Source	Data Type
Florida Department of Community Affairs, Division of Emergency Management	The Arbiter of Storms (TAOS) maps and computer model projections as well as technical support and data
Florida Department of Environmental Protection	Environmental risk and exposure to hurricanes, environmental effects, and environmental hazards
Florida Game and Fresh Water Fish Commission	Hurricane effects on fish and wildlife
Florida Department of Corrections	Prison statistics and emergency management plans
Florida Department of Education	School and Board of Education emergency guidelines
South Florida Water Management District	Climatic and weather data, hydrologic data, water release schedules, and emergency management plans
Treasure Coast Regional Planning Council	Building codes and impacts of proposed State-wide unified building code
St. Lucie County Airport	Weather data and hurricane protection procedures
St. Lucie County Comprehensive Growth Management Plan	Land management, zoning, and hurricane mitigation related ordinances
St. Lucie County Administrative Services	Building codes and zoning ordinances
St. Lucie County Community Services	Building codes and zoning ordinances
St. Lucie County Property Appraiser	Tax assessor records for use in determining dollar value of exposed property
St. Lucie County Information Services	Statistical data
St. Lucie County General Services	Engineering, drainage, road elevations, and storm water data
St. Lucie County Fire Department	Critical facilities locations and emergency management plans
St. Lucie County Health Department	Critical facilities and health risk data
The School Board	Schools, shelter, and critical facilities data and emergency management plans
St. Lucie County Attorney's Office	Building codes and ordinances
St. Lucie County Parks Recreation	Environmental and recreational data and potential impacts data
St. Lucie County Emergency Services	Emergency management plans, historical data, critical facilities, special needs, and general guidance
St. Lucie County Clerk of the Court	County prison population and emergency management plans

Table D.1. (Continued).

Source	Data Type
Emergency Medical Services (E911 Coordinator)	Emergency management plans
St. Lucie Animal Control	Animal protection, regulation, and control plans following natural disasters (hurricanes)
St. Lucie County Sheriff's Department	Emergency management plans and law enforcement procedures following a natural disaster
St. Lucie County Tourist Development Council	Potential economic loss and specific areas of economic vulnerability
St. Lucie County Utilities Department	Critical facilities locations and emergency management procedures
<p>There are four municipalities in St. Lucie County who are participating in the development of a unified LMS process with the County. Various departments corresponding to:</p> <p style="padding-left: 40px;">The Property Appraiser's Office; Public Works; Public Safety; Health Department; Building, Planning, and Zoning; and Fire and Rescue.</p> <p>Will be contacted within each municipality.</p>	<p>All municipalities will be contacted to determine individual vulnerabilities, populations at risk, and dollar values of exposure. Emergency plans, building codes, storm water management engineering, and police and fire emergency management plans will be reviewed</p>
St. Lucie County Red Cross	Historical data, shelter data, and emergency management plans
Hospitals, Clinics, and Nursing Facilities	Critical facilities locations, special equipment, special needs, and evacuation plans
Florida Power & Light and Other Municipal/Private Power Companies	Power grid vulnerabilities, structure, and emergency management plans
Home Depot/Lowe's	Emergency management supply plans for preparation and recovery
Publix/Winn Dixie	Emergency food supply plans
Southern Bell	Critical facilities locations, and emergency communication maintenance plans
AT&T Wireless Services	Critical facilities locations, and emergency communication maintenance plans
U.S. Cellular Wireless Communications	Critical facilities locations and emergency communication maintenance plans

Table D.1. (Continued).

Source	Data Type
Local Radio and Television Stations	Critical facilities locations and emergency management plans (operating plans) during natural disaster
<i>Tornadoes and Thunderstorms</i>	
Natural Hazards Research Center	Historical and current data on all types of natural hazards
The Tornado Project On-Line	Historical data
U.S. Census	Housing data
Optical Transient Detector Database	Lightning associated with thunderstorms (lightning statistics)
NASA Natural Disaster Reference Database	Historical data on all types of natural hazards
National Weather Service	Weather statistics
National Climate Data Center - online database	Weather statistics
NOAA Wind Related Fatalities Database	Wind related fatalities
NOAA Tropical Prediction Center	Storm predictions
Florida State University	Data and expertise concerning all Florida natural hazards
Florida Atlantic University	Data and expertise concerning all Florida natural hazards
National Severe Storms Laboratory	Storm and tornado statistics and storm effects
Independent Insurance Agents of America (Natural Disaster Risk Database)	Financial data concerning losses resulting from thunderstorms and tornadoes
Florida Department of Community Affairs, Division of Emergency Management	Incident reports and historical data
South Florida Water Management District	Climatic data
Alachua County Office of Emergency Management	Thunderstorm effects
St. Lucie County Airport	Weather data and protection plans and procedures during thunderstorms and tornadoes
St. Lucie County Fire Department	Thunderstorm and tornado fire and fatality data
St. Lucie County Emergency Services	Thunderstorm and tornado historical data
St. Lucie County Emergency Medical Services	Historical data on thunderstorm and tornado related medical emergencies
Public Safety, Emergency Management, Health Department, and Fire and Rescue Departments within each municipality	Historical data on impacts of thunderstorms and tornadoes at the local level
St. Lucie County Red Cross	Historical data on impacts

Table D.1. (Continued).

Source	Data Type
Florida Power & Light and other municipal/private power companies	Historical data on impacts to the power grid
Southern Bell	Historical data on communications impacts
AT&T Wireless Services	Historical data on communications disruptions
U.S. Cellular Wireless Communications	Historical data on communications disruptions
Local radio and television stations	Historical data on losses and possible future losses
Lightning/Electromagnetic Disturbances (normally included under thunderstorms but along the Treasure Coast, we believe this hazard is significant enough to be considered alone)	
Natural Hazards Research Center	Lightning research and statistics
USA Today	Lightning impacts
NASA Natural Disaster Reference Database	Lightning statistics
National Weather Service	Lightning strike data
National Climate Data Center - online database	Lightning strike data
NOAA Lightning Related Fatalities Database	Lightning fatalities
National Lightning Safety Institute (NLSI)	Lightning research and protection measures
Western Kentucky University	Lightning impacts
Florida State University	Data and expertise concerning all natural hazards
Florida Atlantic University	Data and expertise concerning all natural hazards
University of Florida Lightning Research Laboratory	Current research on lightning causes and effects
National Severe Storms Laboratory	Lightning statistics
Independent Insurance Agents of America (Natural Disaster Risk Database)	Financial losses attributable to lightning and related electromagnetic discharges
Florida Department of Community Affairs, Division of Emergency Management	Data on major fires caused by lightning
Florida Fire Chief's Association	Data on fires caused by lightning
South Florida Water Management District	Data on lightning related losses
St. Lucie County Airport	Lightning data and protective measures
St. Lucie County Fire Department	Lightning related fires and injuries
St. Lucie County Parks & Recreation	Data on lightning related losses
St. Lucie County Emergency Services	Lightning protection procedures



Table D.1. (Continued).

Source	Data Type
Emergency Medical Services (911 Coordinator)	Lightning related injuries
St. Lucie County Sheriff's Department	Data on communication disruption
Florida Power & Light	Financial losses and power grid disruptions due to lightning
Southern Bell	Financial losses and communications disruptions due to lightning
AT&T Wireless Services	Financial losses and communications disruptions due to lightning
U.S. Cellular Wireless Communications	Financial losses and communications disruptions due to lightning
Coastal and Riverine Flooding	
Association of State Floodplain Managers	Flood plain data, flooding statistics, and mitigation approaches
Natural Hazards Research Center	Technical data on all natural hazards
NOAA Flood Related Fatalities Database	Flood related fatalities
NOAA Hydrologic Information Center	Hydrologic data
NOAA Tropical Cyclone Database	Rainfall associated with specific types of storm events
NASA Natural Disaster Reference Database	Specific flooding and mitigation data nationwide
NASA Flood Hazard Research Center	Flood research and mitigation approaches
National Weather Service	Climatic data
National Climate Data Center - online database	Weather/rainfall historical data
National Flood Proofing Committee Database	Mitigation procedures
National Association of Flood and Storm Water Management Agencies	Storm water management data and procedures
Atlantic Ocean and Meteorological Laboratory, Hurricane Research Division	Historical meteorological data
Federal Emergency Management Authority	Historical flooding data
Tropical Storm Watch Database	Rainfall events and flooding data
Flood Insurance Rate Maps and Community Status Book	Identification of properties within the flood plain
U.S. Geological Survey	Topographic maps
U.S. Army Corps of Engineers	Historical flooding data and flood prevention projects
Dartmouth Flood Observatory	Flooding research
Earth Satellite Corporation (EarthSat) Floodwatch Database	Historical flooding data

Table D.1. (Continued).

Source	Data Type
Florida State University	Data and expertise concerning all Florida natural hazards
Florida Atlantic University	Data and expertise concerning all Florida natural hazards
National Severe Storms Laboratory	Rainfall data and related flooding events
Independent Insurance Agents of America (Natural Disaster Risk Database)	Property and financial losses as a result of flooding
Florida Department of Community Affairs, Division of Emergency Management	Historical data on flooding events in St. Lucie County
Florida Association of Floodplain Managers	Flood data specific to Florida
Florida Department of Environmental Protection	Environmental parameters and risk associated with flooding
Florida Game and Fresh Water Fish Commission	Wildlife resources impacted by flooding
South Florida Water Management District	Water management, hydrology, and flood prevention procedures
St. Lucie County Growth Management	Zoning ordinances and building codes that affect flood protection
St. Lucie County Property Appraiser	Property value within flood zones
St. Lucie County Public Services	Highway and storm water management procedures
St. Lucie County Fire Department	Flooding associated fires and injuries
St. Lucie County Health Department	Disease risk and contamination potential associated with flooding
St. Lucie County Parks & Recreation	Recreational resources at risk due to flooding
St. Lucie County Emergency Services	Historical flooding data and emergency management procedures
St. Lucie County Emergency Medical Services	Flooding related injuries
St. Lucie County Animal Control	Animal control problems associated with flooding
St. Lucie County Sheriff Department	Emergency management procedures associated with flooding
St. Lucie County Emergency Services	Critical facilities at risk due to flooding and potential impacts

Table D.1. (Continued).

Source	Data Type
<p>Municipal offices to be contacted within the participating cities:</p> <p>The Property Appraiser's Office; Public Works; Public Safety; Health Department; Building, Planning, and Zoning; and Fire and Rescue</p>	All municipalities will be contacted to determine individual vulnerabilities, populations at risk, and dollar values of exposure. Emergency plans, building codes, storm water management engineering, and police and fire emergency management plans will be reviewed
Independent Drainage Districts	All independent drainage districts will be contacted for historical data and identified areas at risk
St. Lucie County Red Cross	Historical flooding data and repetitively damaged structures data
Florida Power & Light	Flooding emergency plans and critical facilities at risk
Extreme Temperatures	
National Weather Service	Historical records on extreme temperatures
National Climate Data Center - online database	Historical records on extreme temperatures
Federal Emergency Management Agency	Extreme heat impacts
U.S. Department of Agriculture - County Extension Agents	Local agricultural data on frequency, impacts, and financial losses due to extreme temperatures (heat and cold)
Florida Citrus Commission	Frequency and amount of financial losses to citrus crops due to freezing temperatures and long-term industry impacts
Florida Department of Children and Families	Homeless population data
Florida Department of Citrus	Frequency and amount of financial losses to citrus crops due to freezing temperatures and current mitigation strategies
Florida Department of Agriculture & Consumer Services	Frequency and amount of financial losses to all agricultural business as a result of extreme temperatures (heat and cold)
Florida Farm Bureau	Frequency and amount of financial losses to all agricultural business as a result of extreme temperatures and current mitigation and risk reduction strategies
Florida State University	Agricultural research and new mitigative strategies to reduce freeze impacts

Table D.1. (Continued).

Source	Data Type
Florida Atlantic University	Temperature impacts to aquaculture industry
University of Florida	Agricultural research and new mitigative strategies to reduce freeze impacts
University of Miami	Agricultural research and new mitigative strategies to reduce freeze impacts
Florida Department of Environmental Protection	Environments at risk from temperature extremes and environmental consequences of current mitigation strategies
South Florida Water Management District	Climate records and water demands associated with freeze mitigation
St. Lucie County Agriculture Extension Service	Historical impact and financial losses resulting from freezing temperatures in St. Lucie County
St. Lucie County Environmental Services	Historical impact and financial losses resulting from freezing temperatures in St. Lucie County
St. Lucie County Citrus and Farming Interest	Historical freeze/heat losses and current mitigation strategies
St. Lucie County Red Cross	Impacts to poor and homeless due to temperature extremes
Wildland Fires (Urban interface wildland fires and muck fires)	
National Weather Service	Climate data/drought predictions
National Interagency Coordination Center Reports	Wildland fire reports
National Wildland/Urban Interface Fire Protection Program	Risk assessment methodology
National Climate Data Center - online database	Climate data
U.S. Forest Service	Wildland fire reports and preventative measures
U.S. Department of Agriculture - County Extension Agents	Controlled burning/muck deposits
U.S. Geological Survey	Soil types/muck deposits
Florida Division of Forestry	Wildland fire statistics
Florida Geological Society	Soil types/muck deposits
The Wildland Fire Assessment System	Wildland fire statistics and containment procedures
Florida Forest Protection Bureau	Florida specific wildland fire statistics and current preventative practices
Florida Department of Environmental Protection	Natural resources at risk and protective measures

Table D.1. (Continued).

Source	Data Type
Florida Fire Chief's Association	Florida specific wildland fire statistics, firefighting technology, and potential mitigative measures for Florida communities
South Florida Water Management District	Water resources and right-of-way management practices
St. Lucie County Agriculture Extension Service	Land use patterns in St. Lucie County to establish areas at risk
St. Lucie County Community Development Department	Land use patterns in St. Lucie County to establish areas at risk
St. Lucie County Parks Division	Land use patterns in St. Lucie County to establish areas at risk
St. Lucie County Fire Department - Fire Prevention Plan Review and Inspection	Land use patterns in St. Lucie County to establish areas at risk and current or in-place protective measures
Wildland Fire Magazine Database	Wildland fire statistics
Drought	
National Weather Service	Climate data/drought predictions
National Climate Data Center - online database	Climate data
National Drought Mitigation Center	Drought impacts
U.S.G.S historical and real time data on water resources of south Florida	Water resources
U.S. Department of Agriculture - County Extension Agents	Historical data on droughts and the economic impacts to local agriculture
Florida Citrus Commission	Economic losses to the citrus industry from droughts
Florida Department of Citrus	Economic losses to the citrus industry from droughts and current irrigation technology
Florida Forest Protection Bureau	Drought statistics
Florida Department of Environmental Protection	Environmental impacts of droughts to natural ecosystems
Florida Department of Agriculture & Consumer Services	Agricultural losses due to droughts and current irrigation technology
South Florida Water Management District	Water allocations during drought conditions
St. Lucie County Agricultural Extension Service	County specific economic losses from drought and current economic vulnerability
St. Lucie County Parks & Recreation	Recreational resources impacted by droughts
St. Lucie County Utilities Department	Impacts from droughts of the potable water supplies and impacts in urban areas. Water rationing plans

Table D.1. (Continued).

Source	Data Type
Municipal water utilities	Impacts of, and water allotment plans during times of droughts in cities. Water rationing plans
Erosion (Beach and Waterways)	
Florida Department of Environmental Protection – Bureau of Beaches and Coastal Systems	Critical erosion areas in Florida
Union of International Associations	Soil information
Sea Grant Haznet	Erosion impacts
U.S. Army Corps of Engineers	St. Lucie County beach erosion statistics and beach restoration projects
Florida Inland Navigational District	Maintenance records for the Intracoastal Waterway and other St. Lucie County navigable waters
South Florida Water Management District	Canal maintenance and erosion
St. Lucie County Environmental Services	Environmental problems associated with erosion control and natural resources threatened by erosion
St. Lucie County General Services	Current erosion prevention measures
St. Lucie County Parks & Recreation	Current erosion prevention measures
St. Lucie County Municipalities	Current erosion problems and prevention measures
St. Lucie Inlet District	Information on beach erosion in and around St. Lucie Inlet
Agricultural Pests and Diseases	
U.S. Forest Service	Forest diseases and current problem/preventative measures
U.S. Department of Agriculture - County Extension Agents	Local agricultural pests and potential exotic threats
U.S. Customs	Current programs to prevent introduction of agricultural pests and diseases
Florida Farm Bureau	Economic losses due to agricultural pests and diseases
Florida Citrus Commission	Citrus losses due to agricultural pests and diseases
Florida Forest Protection Bureau	Forest diseases and current problem/preventative measures
Florida State University	Agricultural research and pest control
Florida Atlantic University	Agricultural research and pest control
University of Florida	Agricultural research and pest control
University of Miami	Agricultural research and pest control

Table D.1. (Continued).

Source	Data Type
Florida Department of Environmental Protection	Environmental resources at risk and environmental consequences of current or proposed control measures
Florida Department of Agriculture & Consumer Services	Economic losses from agricultural pests and diseases and current control technology
St. Lucie Agricultural Extension Service	Economic losses and current control programs
St. Lucie County Parks & Recreation	Pest control programs on public lands
Seismic Hazards (Sinkholes, Tidal Waves, and Other Geologic Hazards)	
U.S. Geological Survey	Geologic structure and seismic risk
National Earthquake Information Center	Historical events
United States Army Corps of Engineers	Dam inventory
Florida Geological Society	Geologic structure and soil characteristics
<i>Technological/Manmade Hazards - Hazards due to accidents involving man-made facilities or functions</i>	
Radiological Hazards	
U.S. Nuclear Regulatory Commission	Nuclear power plant regulation, accident statistics, and emergency procedures
Nuclear Energy Institute	Emergency planning information
Federal Emergency Management Agency	Nuclear power plant accident statistics and emergency procedures
National Emergency Management Agency	Nuclear power plant and radiological emergency management procedures
Florida Division of Emergency Management	Nuclear power plant and radiological emergency management procedures
Florida Emergency Preparedness Association	Radiological emergency management procedures
State and Local Emergency Data Users Group Database	Radiological accident management database
Florida Power and Light Emergency Plan	Industry emergency management plans
St. Lucie County Emergency Services - Emergency Management Comprehensive Emergency Management Plan (CEMP)	Local radiological emergency management plan
Hospital Plans - Both Radiological Materials Disposal (Hazardous Waste) and Mass Radiation casualties or Nuclear Accident Plans	Local radiological emergency plans and safeguards
Hazardous Material	
Federal Emergency Management Agency	Hazardous material emergency management guidelines

Table D.1. (Continued).

Source	Data Type
National Transportation Safety Board	Hazardous material transport regulation, spill cleanup procedures, and spill statistics
Occupational Safety and Health Agency	Hazardous material handling requirements
U.S. Environmental Protection Agency	List of hazardous materials
Hazardous Chemicals Database (online)	Hazardous materials data
Material Safety Data Sheets (online)	Specific chemical facts
State Emergency Response Commission (SERC) Emergency Plan for Hazardous Materials	Spill response procedures
Florida District and Local Emergency Planning Committee (LEPC) Emergency Plan for Hazardous Materials	Local sources and emergency management plans (vulnerabilities)
Facilities Database for Users of Extremely Hazardous Substances (EHS) and Hazardous Materials	Geo-referenced local database of users
Florida Division of Emergency Management	Methodology for handling hazardous material releases
Florida Emergency Preparedness Association	Methodology for handling hazardous material releases
Florida Department of Transportation	Highway spill data for hazardous material spill data. Methodology for handling hazardous material releases
State and Local Emergency Data Users Group Database	Spill and release of hazardous materials statistics
Florida Fire Chief's Association	Hazardous material emergency plans and containment procedures. Spill/release statistics
St. Lucie County Emergency Services	Methodology for handling hazardous material releases
St. Lucie County Fire Department	Methodology for handling hazardous material releases
Municipal Fire and Police Departments	Methodology for handling hazardous material releases
St. Lucie County Health Department	Methodology for handling hazardous material releases and emergency treatment procedures
Identified Users of EHS Emergency Plans	Industry control and emergency management plans for hazardous material
Local Gasoline and Natural Gas Companies	Location of critical facilities/infrastructure elements



Table D.1. (Continued).

Source	Data Type
Transportation System Accidents	
Federal Aeronautical Administration	Aircraft accident statistics and airport safety procedures
National Transportation Safety Board	Aircraft accident statistics
U.S. Coast Guard	Boating/shipping accidents (including oil and hazardous materials releases) and spill containment procedures
Florida Department of Transportation - Motor Carrier Compliance Division	Truck accidents (including oil and hazardous materials releases)
Florida Highway Patrol	Truck accidents (including oil and hazardous materials releases)
Florida Marine Patrol	Boating/shipping accidents (including oil and hazardous materials releases) and spill containment procedures
St. Lucie County Airport	Aircraft accident statistics and airport safety procedures
St. Lucie County Sheriff's Department - Marine Unit and Environmental Crimes Unit	Boating/shipping accidents (including oil and hazardous materials releases), spill containment procedures, and environmental crimes statistics
Florida East Coast Railway	Railway accident statistics (including oil and hazardous materials releases), and safety procedures
CSX Rail	Railway accident statistics (including oil and hazardous materials releases), and safety procedures
St. Lucie County Fire Department and Emergency Medical Services	Accident statistics involving injuries in St. Lucie County
Municipal police and fire departments	Accident statistics involving injuries in the cities
Power/Communications/Computer Grid System Failures	
Washington Post Article	2003 Northeast Power Failure
Florida Power & Light Emergency Management Plans and Historical Database	Historical data and emergency management plans
SouthernBell Emergency Management Plan and Historical Database	Historical data and emergency management plans
Cellular and Satellite Communication Companies	Historical data and emergency management plans
Florida Reliability Coordinating Council	Power shortage plan information

Table D.1. (Continued).

Source	Data Type
The Banking Industry (Large Area Networks - LANs Protection and Emergency Restoration Plans, as well as historical data on system failures)	Historical data and emergency management plans
<i>Societal Hazards - Hazards arising from disruptions in normal government and community function</i>	
Civil Disturbance	
Federal Bureau of Investigation Database	Historical data
National Security Council Database	Historical data and risk analysis
Drug Enforcement Agency Database	Historical data
Immigration and Naturalization Service Database	Historical data
U.S. Customs Service	Historical data
U.S. Census Database	Population demographics
Florida Department of Law Enforcement	Historical data and situation plans
Florida Department of Health Education and Welfare	Historical data
St. Lucie County Sheriff's Department	Historical data and situation plans
Municipal Police Departments	Historical data and situation plans
St. Lucie County Emergency Medical Services	Historical data and situation plans
Terrorism and Sabotage	
National Conference of State Legislators	Economic data for September 11th
Natural Hazards Research and Applications Information Center	Terrorism impacts
Federal Bureau of Investigation Database	Historical data, situation plans, and risk analysis
National Security Council Database	Historical data, situation plans, and risk analysis
Drug Enforcement Agency Database	Historical data
Immigration and Naturalization Service Database	Historical data and preventative measures
U.S. Census Database	Population demographics
American Society for Industrial Security	Risk analysis techniques and database
Florida Department of Law Enforcement	Historical data, situation plans, and risk analysis
Florida Department of Health Education and Welfare	Population demographics
St. Lucie County Sheriff's Department	Historical data, situation plans, and risk analysis
Municipal Police Departments	Historical data, situation plans, and risk analysis

Table D.1. (Continued).

Source	Data Type
St. Lucie County Public Safety Department, Emergency Medical Services Division	Historical data on injuries
Mass Immigration	
U.S. Coast Guard	Historical data, and situation plans
Immigration and Naturalization Service	Historical data situation plans, and risk analysis
Florida Marine Patrol	Situation plans and interagency coordination
Florida Department of Law Enforcement	Historical data, situation plans, risk analysis, and interagency coordination
Florida Department of Health Education and Welfare	Population demographics
St. Lucie County Sheriff's Department	Historical data, situation plans, risk analysis, and interagency coordination
Municipal Police Departments	Historical data, situation plans, risk analysis, and interagency coordination
St. Lucie County Emergency Services	Situation plans and interagency coordination
St. Lucie County Emergency Medical Services	Historical data and medical risk analysis
Other Hazards - Crime, Drug Abuse, Economic Crises, Communicable Diseases	
Federal Bureau of Investigation Database	Historical data
National Security Council Database	Historical data
Drug Enforcement Agency Database	Historical data
Immigration and Naturalization Service Database	Historical data
U.S. Census Database	Population demographics
U.S. Public Health Service - Center for Communicable Disease	Disease risk
Florida Department of Law Enforcement	Historical data
Florida Department of Health Education and Welfare	Historical data
Florida Department of Labor	Historical data
St. Lucie County Sheriff's Department	Historical data
Municipal Police Departments	Historical data
St. Lucie County Emergency Services	Historical data
St. Lucie County Emergency Medical Services	Historical data
St. Lucie County Health Department	Historical data

**APPENDIX E**  
**PARTICIPATION DOCUMENTATION**

## E.1 BACKGROUND

The ever-increasing time and cost associated with responding to and recovering from disasters has prompted a shift towards planning for disasters before they strike. This shift towards pre-disaster mitigation planning is evident in the Federal Emergency Management Agency's (FEMA's) development of the Disaster Mitigation Act of 2000 (DMA2K). DMA2K requires that local jurisdictions have a natural hazard mitigation plan in place in order to be eligible for hazard mitigation grant funds as well as some post-disaster assistance programs. The development of DMA2K has created a number of new natural hazard planning responsibilities for both local and State jurisdictions, including responsibilities for identifying hazards, completing risk assessments, and involving citizens. With the focus of the requirements being on the process rather than the product, citizen involvement has become a vital component of the mitigation planning process (see **Table E.1**).

Table E.1. Language of the Disaster Mitigation Act of 2000.

<p>Citizen Involvement Requirements of the Disaster Mitigation Act of 2000</p> <p><i>Planning Process.</i> An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include</p> <ol style="list-style-type: none"><li>1. An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval.</li><li>2. An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and non-profit interests to be involved in the planning process.</li></ol>
---

Source: National Archives and Records Administration. 2002. Federal Emergency Management Agency 44 CFR Parts 201 and 206 Hazard Mitigation Planning and Hazard Mitigation Grant Program; Interim Final Rule in Federal Register.

This appendix documents the steps taken to include various stakeholder groups and the public in general in the local mitigation strategy (LMS) planning process.

## E.2 STEERING COMMITTEE MEETINGS

The main method of involving jurisdictions, community organizations, stakeholders, and the public in the LMS planning process was through the Steering Committee. Individuals and organizations with directives or programs supporting mitigation were invited to become involved in the Steering Committee. The groups listed below were invited to join the Steering Committee:

- St. Lucie County Emergency Management
- American Red Cross
- St. Lucie County School Board
- St. Lucie County Sheriff's Office
- St. Lucie County Community Development
- St. Lucie County Fire District
- St. Lucie County Human Services
- St. Lucie County Planning
- St. Lucie County Health
- St. Lucie County Public Works
- Port St. Lucie Engineering
- Port St. Lucie Police Department
- Port St. Lucie Public Works
- St. Lucie Village
- Ft. Pierce Police
- Ft. Pierce Planning
- Ft. Pierce Public Works
- Ft. Pierce Engineering
- Ft. Pierce Utility Authority
- LBFH, Inc.
- North St. Lucie River Water Control District
- Salvation Army
- David Wilbur Insurance
- Chamber of Commerce
- Treasure Coast Regional Planning Council
- St. Lucie County Tourism Committee
- St. Lucie County Historical Society
- St. Lucie County Road and Bridge Department
- Florida Atlantic University Agricultural Extension
- St. Lucie Medical Center
- St. Lucie County Council on Aging
- Treasure Coast Builders Association
- Lawnwood Medical Center
- St. Lucie County Hotel and Motel Association
- Indian River Community College
- Florida East Coast Railroad

The St. Lucie County LMS Steering Committee met a total of five times throughout the planning process. Each meeting's invitation process and outcome are described below.

Note: The Town of St. Lucie Village has a population of 604 people (U.S. Census, 2000). The Town has no full-time staff and depends upon its elected officials to represent it on committees like the St. Lucie County LMS Steering Committee. At the outset of the LMS update process, it was obvious that there might be LMS Steering Committee meetings that the Village might not be able to attend; therefore, prior to each meeting, the Town was contacted to see if their representative might be attending. In cases where the Town would have no representative, the meeting agenda packet to be considered by the Steering Committee was provided to the Mayor of the Town or his designated representative for their review and comment. If the Town representative had concerns regarding materials in the agenda packet, they would inform the planning consultant assisting the Steering Committee, and he would share the Town's concerns with other members of the Steering Committee members at their upcoming meeting. Minutes of the LMS Steering Committee would be provided to the Town.

### **E.2.1 Meeting #1**

The first meeting of the Steering Committee was held on 13 November 2003 at the St. Lucie County Administrative Building and served as a kick-off meeting for the LMS update process. Letters of invitation were mailed to those identified as being key stakeholders in mitigation hazards in St. Lucie County. Two sets of letters were used: one for those who had already participated in LMS efforts in the past, and one for newcomers to the LMS planning process. Organizations in attendance included

- Treasure Coast Regional Planning Council
- Fort Pierce Utility Authority

- St. Lucie County Sheriff's Office
- St. Lucie County Fire District
- St. Lucie County Tourism Committee
- St. Lucie County Historical Society
- St. Lucie County Human Services
- St. Lucie County School District
- St. Lucie County Planning
- St. Lucie County Health Department
- St. Lucie County Road and Bridge Department
- St. Lucie County Cooperative Extension
- St. Lucie Village
- LBFH, Inc.
- Port St. Lucie Public Works

The focus of this meeting was to go over the new requirements of DMA2K and the tasks to be completed. The letter of invitation, agenda, sign-in sheet, and minutes from this meeting can be found attached to this appendix.

### **E.2.2 Meeting #2**

The second meeting of the Steering Committee took place on 11 December 2003 at the St. Lucie County Administration Building. Steering Committee members were notified of the meeting through mailed communication including an invitation letter and agenda. The following organizations were in attendance:

- Treasure Coast Regional Planning Council
- City of Fort Pierce
- St. Lucie County Health Department
- Port St. Lucie Public Works
- St. Lucie County Emergency Management
- LBFH, Inc./North St. Lucie River Water Control District
- St. Lucie County Fire District
- St. Lucie Medical Center
- St. Lucie County Planning
- St. Lucie County Sheriff's Office

The focus of the meeting was to discuss the participation process, identify issues, and discuss data needs. The letter of invitation, public advertisement, agenda, sign-in sheet, and minutes from this meeting can be found attached to this appendix.

### **E.2.3 Meeting #3**

The third meeting of the Steering Committee was held on 8 January 2004 at the St. Lucie County Administration Building. Steering Committee members were notified of the meeting through mailed communication including an invitation letter and agenda. The following organizations were in attendance:

- City of Fort Pierce
- City of Port St. Lucie
- City of Port St. Lucie Public Works Department

- St. Lucie County Community Development Department
- St. Lucie County Public Works Department
- St. Lucie County Sheriff's Office

The focus of this meeting was to identify issues, problems, and needs in the community related to disasters. The letter of invitation, agenda, and sign-in sheet from this meeting can be found attached to this appendix.

#### **E.2.4 Meeting #4**

The fourth meeting of the Steering Committee was held on 26 February 2004 at the St. Lucie County Administration Building. Steering Committee members were notified of the meeting through mailed communication including an invitation letter and agenda. This meeting was advertised to the public through the local newspaper. The following organizations were in attendance:

- City of Fort Pierce
- City of Port St. Lucie
- Fort Pierce Utility Authority
- LBFH, Inc.
- MRA Realty
- St. Lucie County Community Development Department
- St. Lucie County Fire Department
- St. Lucie County Health Department
- St. Lucie County Public Works Department
- St. Lucie Village
- Treasure Coast Regional Planning Council

The focus of this meeting was to discuss the identified issues, problems, and needs, review the County's hazard exposure based on new The Arbiter of Storms (TAOS) data, and discuss the project prioritization list and implementation strategy. The letter of invitation, agenda, and sign-in sheet from this meeting can be found attached to this appendix.

#### **E.2.5 Meeting #5**

The fifth meeting of the Steering Committee was held on 25 March 2004 at the St. Lucie County Administration Building. Steering Committee members were notified of the meeting through mailed communication including an invitation letter and agenda. The following organizations were in attendance:

- City of Port St. Lucie Public Works Department
- LBFH, Inc.
- North St. Lucie River Water Control District/Fort Pierce Farms Water Control District
- St. Lucie County Community Development Department
- St. Lucie County Public Works Department
- St. Lucie County Community Services
- St. Lucie County Sheriff's Office
- Treasure Coast Regional Planning Council



The focus of this meeting was to discuss the project prioritization methodology and the implementation strategy. The letter of invitation, agenda, and sign-in sheet from this meeting can be found attached to this appendix.

#### **E.2.6 Meeting #6**

The sixth meeting of the Steering Committee was held on 27 August 2004 at the St. Lucie County Administration Building. Steering Committee members were notified of the meeting through mailed communication including an invitation letter and agenda. The public was invited to attend the meeting to comment on the final draft plan via newspaper advertisement. The following organizations were in attendance:

- St. Lucie County Community Development Department
- City of Port St. Lucie Public Works Department
- St. Lucie County Department of Health
- City of Fort Pierce
- Small business owner

The focus of this meeting was to review and discuss the draft final plan and to collect public comment on the plan. The public advertisement, agenda, and sign-in sheet from this meeting can be found attached to this appendix.

## **ATTACHMENTS**

INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS



INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS



INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS

INSERT APPENDIX E ATTACHMENTS

## **APPENDIX F**

### **ACRONYMS**

Table F.1. Acronyms used in the Local Mitigation Strategy.

Acronym	Full Name
AED	automated external defibrillator
ASFPM	Association of State Floodplain Managers
AVL	automatic vehicle locator
BFE	Base Flood Elevation
BOAF	Building Officials Association of Florida
CARL	conservation and recreational land
CBD	Central Business District
CBRA	Coastal Barrier Resources Act
CDBG	Community Development Block Grant
CDD	Community Development Department
CEMP	Comprehensive Emergency Management Plan
CERT	Community Emergency Response Team
CHHA	Coastal High Hazard Area
CIE	Capital Improvements Element
CNMI	Commonwealth of North Mariana Islands
COA	Council on Aging
COOP	Continuity of Operations Plan
CRS	Community Ratings System
CSA	Continental Shelf Associates, Inc.
DEM	Division of Emergency Management
DEP	Department of Environmental Protection
DHS	Department of Human Services
DMA2K	Disaster Mitigation Act of 2000
DOC	Department of Commerce
DPS	Department of Public Safety
DPW	Department of Public Works
DRI	Disaster Recovery Initiative
EDA	Economic Development Administration
EHS	Extremely Hazardous Substance
EMPA	Emergency Management and Preparedness Assistance
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
EPCRA	Emergency Preparedness and Community Right to Know Act
EPZ	Emergency Planning Zone
EQIP	Environmental Quality Incentives Program
ESF	Emergency Support Function
ESG	Emergency Shelter Grant
F.A.C.	Florida Administrative Code
FCMP	Florida Coastal Management Program
FCT	Florida Communities Trust
FDBPR	Florida Department of Business and Professional Regulation
FDCA	Florida Department of Community Affairs
FDEP	Florida Department of Environmental Protection

Table F.1. (Continued).

Acronym	Full Name
FDOC	Florida Department of Corrections
FDOE	Florida Department of Education
FDOF	Florida Division of Forestry
FDOI	Florida Department of Insurance
FDOMS	Florida Department of Management Services
FDOS	Florida Department of State
FDOT	Florida Department of Transportation
FEC	Florida East Coast Railroad
FEMA	Federal Emergency Management Agency
FIND	Florida Inland Navigation District
FIRM	Flood Insurance Rate Map
FMA	Flood Mitigation Assistance
FPUA	Fort Pierce Utility Authority
F.S.	Florida Statutes
FSA	Farm Service Agency
HI	Heat Index
HMEP	Hazardous Materials Emergency Preparedness
HUD	United States Department of Housing and Urban Development
IBHS	Institute of Business and Home Safety
IQ	irrigation quality
LEPC	Local Emergency Planning Committee
LMS	Local Mitigation Strategy
LOD	Letter of Dispute
MEMPHIS	Mapping for Emergency Management, Parallel Hazard Information System
MOM	Maximum of Maximums
mph	miles per hour
MPO	Metropolitan Planning Organization
NASA	National Aeronautics and Space Administration
NCDC	National Climatic Data Center
NFIP	National Flood Insurance Program
NFIRA	National Flood Insurance Reform Act
NFPA	National Fire Protection Administration
NGVD	National Geodetic Vertical Datum
NHC	National Hurricane Center
NLSI	National Lightning Safety Institute
NOAA	National Oceanic and Atmospheric Administration
NRCS	National Resource Conservation Service
NRT	National Response Team
NWS	National Weather Service
PAGs	Protective Action Guidelines
PCCIP	President's Commission on Critical Infrastructure Protection
PDM	Pre-Disaster Mitigation
PDR	Purchase of Development Rights

Table F.1. (Continued).

Acronym	Full Name
PHSW	Public Health, Safety, and Welfare
PPL	Project Prioritization List
PSLTV20	Port St. Lucie Television 20
SBA	Small Business Administration
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SERC	State Emergency Response Commission
SFWMD	South Florida Water Management District
SHIP	State Housing Initiative Partnership Program
SLOSH	Sea Land Overland Surges for Hurricanes
SN	special needs
STP	Surface Transportation Program
TAOS	The Arbiter of Storms
TCRPC	Treasure Coast Regional Planning Council
TDR	Transfer of Development Rights
TIP	Transportation Improvement Plan
TYLCV	Tomato Yellow Leaf Curl Virus
USACE	United States Army Corp of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USDOI	United States Department of the Interior
USFA	United States Fire Administration
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey